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MANAGING EDITOR . . . . . CELESTINE J. SULLIVAN
SUPERINTENDENT OF PUBLICATIONS . . . . . WILLIAM H. BARRY

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JUNE CONTENTS

Some Accomplishments and Problems of the Medical Society of the State of California. By John H. Graves, M. D. — 179

Original Articles:

Governmental Activities and Tendencies in the Health Field—President's Address at Annual Meeting, Los Angeles County Medical Society, December 15, 1921. By Walter V. Brem, M. D. — 181

Diseases of Children, What the General Practitioner Can Do to Improve the Diagnosis and Treatment of. By Langley Porter, M. D. — 185

Common Parasitic Dermatoses in Southern California. By Moses Scholtz, M. D. 190

Group Medicine, Factors Contributing to Success or Failure. By E. V. Frederick, M. D. — 192

Nephritis, The Use of Basic Diets in the Treatment of. By W. D. Sansum, M. D. 194

Cardiac Dyspnoea or Rather Cardiac Shortness of Breath. By Harry Spiro, M. D. — 198

Pathology in the Practice of Medicine, The Place of. By Walter V. Brem, M. D. — 201

Editorials:

The Fifty-first Annual Meeting of the Medical Society of the State of California — 205
Patent Medicine Frauds Increasing — 205
Thomas Clay Edwards — 205

County Societies:

Alameda — 206
Contra Costa — 206
Ventura — 206
Fresno — 206
Kern — 206
Los Angeles — 206
Merced — 207
Riverside — 207
Santa Clara — 207
San Bernardino — 207
San Diego — 207
San Francisco — 208
Solano — 208
San Joaquin — 208
Santa Barbara — 209
Yolo — 209
Sonoma — 209
Tulare — 209

Department of Pharmacy and Chemistry. Edited by Felix Lengfeld, Ph. D. — 210
Extension Work — 211
Books Received — 211
Book Reviews — 212
Obituary—E. M. Fly, M. D. — 214
H. Burt Ellis, M. D. — 214
Deaths — 214

Contributors, subscribers and readers will find important information on Page 42 of Advertising Section

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VOL. XX JUNE, 1922 No. 6

SOME ACCOMPLISHMENTS AND PROBLEMS OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA *

By JOHN H. GRAVES, M. D., San Francisco

Following the custom of my predecessors in the Presidential office, I delivered an inaugural address last year at Coronado that differs from those of former years in that it took less than one minute of your time. Its brevity was not due to any lack of appreciation of the signal honor you conferred upon me, nor was it due to any lack of understanding of the many pressing problems that await solution. It was because of a definite knowledge of the great volume of work that the welfare of the Society demanded should be completed without delay and was an effort to establish a time-saving precedent.

Today, after one year as President-elect and one year in the office of President, it becomes my duty to render a brief account of my stewardship of your interests by describing as briefly as possible the year's work and calling to your attention the more important measures that demand action by this Society.

More than half a century has elapsed since a small group, devoted to the advancement of their profession and dedicated to the relief of human suffering, organized the Medical Society of the State of California. When in 1917 its membership had grown to 2400 and Dr. Philip Mills Jones, who, after serving for several successive years as Secretary, had been removed by death, there were many in our ranks who believed that our Society had reached the zenith of its activities and the maximum in membership, and yet on the first day of May of the present year we find the names of over 3500 of the physicians of California on the membership roll of this organization.

We find its Journal enlarged in size, enhanced in value as a scientific publication, with increased circulation, and for the first time in its history, paying its way.

The recently adopted policy of giving papers read before the County Societies the same standing, with equal chance for publication, with those read before the annual meeting of the State Society has resulted not only in elevating the standard and increasing the value of papers contributed to the various county units as well as to the State Society, but has given to the Journal more valuable papers than it can possibly hope to publish.

Among the year's activities should be mentioned the Extension Lecture Service, which brings to the various County Societies men who have made special studies in certain subjects and disseminate among the members of the profession the latest knowledge pertaining thereto by written papers and scientific demonstrations. To this splendid corps of teachers, true to the first principles of their profession, volunteering as they do from every section of the State, permit me, as the spokesman of the membership of this Society, to express my grateful appreciation and a fervent wish for the continuance of their efforts.

Any review of the year's work would be sadly deficient and woefully incomplete without at least a brief review of some of the more important of the many activities of our most capable Secretary. In addition to the crushing work in his office, such as answering thousands of letters and telegrams, holding conferences by the hundreds, locating over one hundred capable physicians in the localities that needed much their services, supplying hundreds of technical assistants to doctors and hospitals, and other hundreds of specially trained and qualified nurses, he has in some mysterious manner found time to travel thousands of miles up and down this State serving you, and through you, the people of California. In twenty-four days this devoted man traveled by automobile over 1600 miles, met over 1500 physicians, spoke before twenty County Medical Societies, visited and assisted in the solution of the problems of over seventy hospitals. During the year he has visited at least once, and in some instances several times, thirty-four of the forty-one County Medical Societies in this State. He assisted in organizing one new society and resuscitated and brought back to vigorous health one that had been in such a comatose state that it had not held a meeting for over five years.

What can we do or say that will properly express our appreciation for a man who, with such zeal and energy and intelligence, dedicates his remarkable abilities to our welfare?

Were it not for the fact that Mr. Hartley F. Peart, the Attorney of the State Medical Society, is to address you this morning on some of the problems of medical defense, I would dwell upon the wonderful record and the immense value to the medical profession of our legal department. It is an outstanding feature in the activities of this organization and no member can afford to leave this year's meeting without being certain that his name is on the list of members of the Indemnity Defense Fund. For the success of this work our Society is most deeply indebted to Mr. Peart, who, in this as in all other matters in which we find his advice necessary, has displayed a legal ability and a loyalty to the ideals of our

* President's Annual Address, delivered at the Annual Meeting of the Medical Society of the State of California, May 18, 1922.

profession greater, I am sure, than those who are not thoroughly familiar with his work can appreciate.

To Mr. Hubert Morrow, who so ably cares for the interests of the fund south of Tehachapi, all praise and thanks are due. The work for hospital betterment, which has been productive of such phenomenal results, has been possible only because of the close co-operation of this Society with the section appointed for that work, by the League for the Conservation of Public Health. In fact, much of the constructive work of our Society, and I think much of the constructive work accomplished by the League for the Conservation of Public Health, was made possible by the close and harmonious relation that exists between these two splendid organizations.

With this work proceeding as successfully and harmoniously for the next year as it has for the past year, the hospital service to the public of California in 1923 will be as much better than that rendered at present as our present hospital service is superior to that rendered in most of the States at the present time.

A year ago it was decided to call a meeting of the presidents and secretaries of the various County Societies, with the understanding that if there was reasonable response to the invitation, a semi-annual meeting of presidents and secretaries of the various county units would be instituted as a permanent feature. What was an experiment a year ago is now a brilliant success.

At the meeting of the officers of the Societies held in San Francisco this past winter, thirty-four of the forty-two County Societies were represented by forty-five officers. The increased efficiency of our organization as a result of the meeting of the various units has been made manifest in ways too numerous to mention at this time. The work of the Industrial Medicine Committee has gone on with sure but necessarily slow progress. This will be thoroughly dealt with by the chairman of that committee, Dr. Parkinson. So I will not comment further on it.

So much for a fractional and extremely sketchy review of the year's work.

And now may I beg your close attention to the brief mention of two subjects which have occupied a most prominent place in my mind during the past year? The first is that of medical education and training. It will be the subject of a paper that will be read before this body tomorrow morning by Dr. Ray Lyman Wilbur, President of Stanford University. As a teacher of medicine, as a clinician, and as the executive head of a great University, I am certain, though I know nothing of the contents of his paper, that it will present many new thoughts in a concise and masterful manner; but if I may be permitted to state some personal views, I will call your attention to the fact that the men and women of the medical profession who are engaged in active practice serving the citizens of California, by returning them to health in the shortest possible space of time when stricken with illness or injury, are not taking the active interest that they should in the education and training of those who are to be their successors. No group can understand or appreciate as well as you, the medical practitioners of California, the real need in the way of medical and surgical service of that great body of worthwhile American citizens that looms so large between the thin line of millionaires on one side and the thin line of paupers on the other side.

This great group, the real group, that is so seldom seen in the teaching clinic or in the $20-a-day room of the exclusive hospitals, this self-respecting, able to pay, willing to pay, business, salary-earning and farm-owning people need more good doctors, fewer poor doctors and fewer specialists, and any doctor can call himself a specialist if he so desires. We need specialists and the people need them, but with numbers diminished and qualifications increased.

In a supplement to a report on medical education and hospitals of the American Medical Association in Boston, Arthur Dean Bevan said: "The Council on Medical Education and Hospitals of the A. M. A. believes that the time has arrived when we must reorganize our scheme of undergraduate medical education so as to give the undergraduate a broader and simpler training in medicine which will make him a better general practitioner. That means simplifying the course under three clinical heads—medicine, surgery, and obstetrics. We must make the effort to train the man who is going into a community to do general practice in the broadest and best possible way. We feel, moreover, that the general practitioner is by all odds the most important man in medicine. Numerically he should be at least 90 per cent of the medical profession. This broadly trained man is the man who can take better care for the health of the community than can any group of specialists no matter how competent."

Not only do I heartily subscribe to the statements of Dr. Bevan, but I respectfully request of my successor to this office that he use his influence to create interest in the subject among the great body of the profession, and I would suggest that at least once a year each County Society requests from one of its members not engaged in teaching, a paper on medical education. This paper, filed in the office of the Journal, would make interesting reading and, I believe, profitable study for the teachers in the medical departments of our universities.

The other subject, like socialism, is somewhat difficult to define. It always reminds me of the various descriptions of the elephant by the six blind men of Hindustan. It is generally alluded to as State Medicine and embraces all such things as compulsory Health Insurance, Diagnostic and Health Centers, controlled and operated by political power. It is an insidious effort by certain misguided and sometimes sinister influences to control by political power the practice of our profession.

It is an attempt under the specious plea of bringing medical aid to the public, to regulate and control not only the practice of the profession, but the activities of the private citizen.

Your time is too limited to permit of an ex-

tended discussion of this most important subject, but let me warn you against lending your support to measures, however plausible, on cursory observation, which may, like the wolf in sheep's clothing, prove to be radicalism covered with the cloak of philanthropy. The teachings of Jefferson, the philosophy of Franklin, and the wisdom of Washington are still more acceptable to most American hearts than the doctrine of Karl Marx.

It is a pleasure to express our appreciation to our distinguished guests, both of our own profession and those distinguished gentlemen, the Hon. John O'Connell, Secretary of the State Labor Association, and the Hon. John D. Fredericks, President of the Los Angeles Chamber of Commerce, for their presence at this meeting. Their intelligent and sympathetic interest in our profession and in our public health problems is gratefully acknowledged by the members of this Society and the League for the Conservation of Public Health.

In conclusion, here in this stupendous amphitheatre, this great gorge chiseled by Almighty God and discovered by a member of our own profession, here by these great waterfalls that were falling when the Pyramids were built, when Christ was crucified, when the fight at Lexington and Concord was news, that will be falling when the events of today have passed into the dim twilight of tradition and disappeared in the black night of oblivion, I desire with all sincerity to express my heartfelt thanks for the great honor which you conferred upon me when you made me the chief executive of your Society, and in saying farewell, to assure you that the work of the years past has been a labor of love and a feeble effort to return in some small way just a little for the very great benefits bestowed on me by members of our profession.

DUBUQUE COUNTY MEDICAL SOCIETY ASSUMES CARE OF POOR

The Dubuque County (Iowa) Medical Society and the County Board of Supervisors have entered into an agreement whereby the medical men of Dubuque County agree to render aid to the indigent poor of the county for a year at the stipulated price of $3,250. The doctors have agreed to each serve the county for a period of ten days, during which times they attend all persons who are county charges free of cost to the individual. This service only applies to the indigent poor. The specialists of the city are allotted specific times when they are subject to call for the care of indigent poor. The money received in payment for this service does not go to the individual physician. A part of it is used by the society to purchase equipment to make more interesting their monthly meetings, and to pay the expenses of experts who may be brought from a distance to address the society.—Illinois Medical Journal, April, 1922.

Medical Veterans of the World War—Those physicians who served at the Letterman General Hospital during the war are urged to send their latest addresses to Dr. A. H. Reinstein, Flood Building, San Francisco, for another reunion dinner is being planned and a full attendance is desired.

ORIGINAL ARTICLES

RESPONSIBILITY FOR STATEMENTS AND CONCLUSIONS IN ORIGINAL ARTICLES

The author of an article appearing in the JOURNAL is entirely responsible for all statements and conclusions. These may or may not be in harmony with the views of the editorial staff. Furthermore, authors are largely responsible for the language and method of presenting their subjects. All manuscripts will be carefully read, but editorial privileges will be exercised only to a very limited extent. It is believed that the manner of presentation of any subject by any author determines to no small degree the value of his conclusions. Therefore, both the author and the reader, in our opinion, are entitled to have the subject as presented by the author as little disturbed as possible by the editors. However, the right to reduce or reject any article is always reserved.

PRESIDENT'S ADDRESS ANNUAL MEETING LOS ANGELES COUNTY MEDICAL ASSOCIATION DECEMBER 15, 1921—GOVERNMENTAL ACTIVITIES AND TENDENCIES IN THE HEALTH FIELD

By WALTER V. BREM, M. D., Los Angeles, Calif.

It is becoming increasingly apparent that large numbers of persons are feeling great irritation and dissatisfaction on account of present conditions of medical practice. Two of the causes of this dissatisfaction are:

1. The enormous increase of knowledge during the past fifty years and the tremendous output of medical literature have rendered it impossible for one physician to cover adequately the vast field; and so there has come about the development of the specialists. These specialists have worked hitherto largely independently of one another, and, in order to secure their services, a patient must often be sent from pillar to post at great inconvenience and a great expenditure of time and energy. Naturally, such patients feel considerable irritation, and, more and more, large groups are seeking a simpler solution of their problem.

2. This irritation is increased by the conditions determining professional fees, inability to estimate the probable cost of sickness, the high cost of sickness, especially for the large group of persons with only moderate incomes, and the frequent inefficiency of the present system of practice. Under present conditions, the factors entering into the determination of a fee for professional services are so many and intangible that it is practically impossible to take any steps toward working out an acceptable schedule. Each physician places his own valuation upon the services rendered. Some of the factors entering into such a valuation are: The skill and experience of the physician; the reputation of the physician and the demand for his services; the character of the services rendered; the result of the treatment, i. e., the benefit the patient receives; the customary charges in the community for such services; the legal and professional hazards involved; the financial status of the patient.

It can be appreciated readily that most of these factors are so intangible that they cannot be used

as a basis for determining a working schedule, while the last factor, "the financial status of the patient," involves the question of the right of one individual to demand that another shall liquidate the debt of, or pay for the charity received by, a third person.

These conditions have led to wide discussions, not only by the laity, but also by those of the medical profession who are interested in the problems of medical economics and who see grave danger ahead if the problems are not met with forethought and vision. In some foreign countries actual experiments by governments have been made toward their solution. So the unfortunate term of "State Medicine" has arisen without any definite understanding of its meaning.

As a matter of fact any governmental activity in the health field is State medicine, and some of these activities are certainly founded upon sound principles and should be supported. Other possible extensions of governmental activities may be grave menaces to the public health, and incidentally to the medical profession. I say "incidentally" to the medical profession because it is axiomatic that such broad questions cannot be justly solved from the point of view of the welfare of a special group, but only upon the basis of the general welfare.

It has seemed appropriate, therefore, to review briefly present governmental activities in the health field, to indicate possible extensions, and to state the problems worthy of our consideration.

PRESENT GOVERNMENTAL HEALTH ACTIVITIES

1. *Preventive medicine.* In this field we cannot deny the value of governmental activity. The main plank in the platform, so to speak, of the medical profession in the municipal election in Los Angeles on June 7, 1921, was as follows: "One of the highest functions of government is the protection and advancement of the health of the people both for economic reasons and to promote the happiness and virility of its citizens."

Governmental activities in the field of preventive medicine may be classified as follows:

Sanitary engineering and control of health problems in community services.

Quarantine.

Vaccination against smallpox, typhoid and diphtheria.

Consultation in contagious diseases.

Vital statistics.

Venereal prophylaxis, quarantine and treatment of patients under quarantine.

Inspection, examination and physical training of school children.

Education in the elementary laws of health and personal hygiene.

Epidemiological research.

2. *Medical education in State universities.*

3. *Medical services of the Army, Navy and Public Health Service.*

4. *Hospitals for indigents.*

5. *Psychopathic institutions, contagious disease hospitals and sanitoria, and emergency hospitals.*

6. *Medical care in government institutions, as penitentiaries.*

7. *Restriction or definition of those who care for the sick, i. e., the issuance of certificates on the basis of educational standards by State Medical Examining Boards.*

8. *Industrial Accident Insurance.*

Numbers 1, 2, 3, 4, 5, and 6, I assume require no discussion, for their value and legitimacy seem undisputed.

Number 7 invites discussion as to whether the medical practice act should restrict the care of the sick to those qualifying by carefully determined educational standards, or should it only define for the benefit of the public those who have qualified and allow others to practice at will, restraining them only from false pretensions regarding qualifications? Those who advocate the latter view appear to lose sight of the fact that efficient quarantine regulations by health departments depend upon the ability of practitioners to diagnose disease and by prompt reports to aid in checking epidemics. Those in the field should form a trained branch of the army evolved for the combat of disease, and the efficiency and morale of the army should not be lowered by permitting untrained men in its ranks.

Another phase suitable for discussion is the advisability of the enforcement of the act by the Medical Examining Board. It has been argued with reason that the board is an educational and not an executive body, that enforcement of the act should be a function of the regular legal machinery, and that enforcement by the board serves to raise the cry of "persecution" by offenders, and thus confuses and arouses suspicion in the public mind.

Number 8, industrial accident insurance, is just emerging from the experimental stage. It provides in California that employers must assume the risk from accident to employes. The compensation is determined by the State Industrial Accident Commission. The employer may carry the risk himself, he may insure in non-official insurance companies, or he may insure with the State Compensation Fund. The last is, in effect, a government insurance company, and it involves the question of governmental invasion of the field of business. If this works out for the benefit of the community, however, there should be no ground for criticism on that score. There may arise, however, legitimate differences of opinion regarding details of the *modus operandi*, but time must be allowed for adjustments, and it would seem wise for us to support the experiment, letting it go forward aided by our sympathetic consideration and counsel.

POSSIBLE EXTENSIONS OF GOVERNMENTAL ACTIVITIES

The term, "State Medicine" as ordinarily used refers, I take it, to certain possible extensions of governmental health activities.

1. Compulsory health insurance.

2. Zoning of communities and distribution of physicians.

3. "Health centers" for the treatment of the indigent sick.

4. Pay clinics with physicians employed by the Government.

5. Complete control of medical practice as a public utility, governmental employment of all physicians, and ownership or control of all health institutions (hospitals, etc.).

(1) *Compulsory health insurance.* The proponents of compulsory health insurance have advocated the following lines of experiment:

(a) Industrial health insurance, along the line of industrial accident insurance, in which the employer now pays for the whole risk.

(b) Industrial health insurance, in which the employer and employe share the risk in certain proportion. This was the basis of the compulsory health insurance initiative which was defeated in California in 1918 by a majority of 224,000.

(c) Health insurance, in which everyone with an income below a certain figure must carry his own insurance with possible assistance from the government, e. g., the "Capitation" fee in England.

In all these instances the government may or may not form an official insurance company, like the State Compensation Fund. If it should, it would control, or enter into competition with other insurance companies in controlling, the professional services rendered. In England the government has controlled the professional services and paid the physicians from the "Capitation" fees. There seems to be widespread dissatisfaction in England both among the laity and the medical profession, and there has been serious discussion regarding the abandonment of the experiment. Aside from the criticism of the enormous expense to government, which does not seem a serious criticism, the great objections have been that the laity complain of perfunctory service and inadequate medical treatment; that the system is developing large numbers of neurotic persons, who, because the service has already been paid for and costs nothing additional, run to the doctor with every conceivable ailment real or imaginary; and the dissatisfaction of the public has resulted in an enormous increase of cultism and quackery.

Such a situation is exactly what we would anticipate under compulsory health insurance, i. e., we would look forward to inferior professional services and to an undermining of the health morale and therapeutic conceptions of the people. Moreover, the people would not retain the right which they so highly prize of selecting their own physician and of experiencing a certain valued relation that should exist between a patient and his chosen physician. A further objection advanced to government controlled medical practice is that it undermines initiative, does not recognize merit, does not stimulate investigation, and, in general, tends to paralyze scientific progress.

These criticisms, if valid, which they undoubtedly are, constitute insuperable objections to compulsory health insurance, disadvantages against which the apparent advantage of smaller professional fees should have no weight. It is imperative, therefore, for the sake of the public welfare and the progress of scientific medicine to oppose any tendencies toward such a program.

(2) *Zoning of communities and distribution of physicians.* There is no question but that the distribution of physicians is a grave matter, and that rural communities suffer from the present tendency of physicians to congregate in the larger urban communities. Governmental interference, however, would be an infringement upon an individual's right to live and work in the place of his choice, and it should be resisted. However, the problem is a proper one for the organized profession to consider, and the American Medical Association is now collecting data in an effort to find a solution by persuasion and dissemination of information rather than by force.

(3) *"Health Centers" for the treatment of the indigent sick.* It may be argued in favor of such health centers that they are but an extension of the idea of hospitals for the care of the indigent sick. The government takes care of poor hospital patients, why not also of ambulatory patients? The psychology of the two situations is different. We know that the American people will apply for admission to a County hospital only when they are financially embarassed, and in definite need. But experience has shown that this is not true of a free clinic, to enter which well-to-do patients will sometimes dress in old clothes, take off their diamond rings, and leave their automobiles around the corner out of sight. Would not government free clinics almost certainly invite such behavior, stimulate a desire to get something for nothing, tend to create a neurotic group, and generally undermine the pride and morale of large numbers of the people?

(4) *Pay clinics with physicians employed by the government.* Such an undertaking by the government would lead logically and inevitably to an extension of activity which would cover the whole field of medicine. Therefore, the discussion of government pay clinics may be included under the next head.

(5) *Complete control of medical practice as a public utility, governmental employment of all physicians, and government ownership or control of all health institutions (hospitals, etc.).*

The questions that would be involved are:

(a) Would the public receive better medical attention? No.

(b) Would the cost of sickness be reduced? No.

(c) Would disability from sickness be reduced? No.

(d) Would the progress of knowledge be advanced or retarded? Retarded.

(e) Would the service rendered by the medical profession be more or less efficient? Less.

(f) Would a premium be placed upon mediocrity and political pull? Yes.
(g) Would the system be swamped in "red tape" and "graft"? Yes.
(h) Is it what the people want? No.

The discussion of compulsory health insurance applies with equal force to most of these questions, and I would answer them categorically as indicated above.

The undertaking would be an enormous one, compared with which the medical service of the Army during the Great War would be but a minor affair. Enormous funds would be involved, great political machines would be built up, red tape and graft would be intolerable, and the morale of the forces fighting against disease would be undermined.

Have we confidence enough in the machinery of government and in our politicians to consider for one moment entrusting to them our patients, our profession, ourselves? Have we not already had sufficient evidence of the inadequacy of government in large business undertakings? Yet the previous problems that have been met with are of elementary simplicity compared with the problems to be met in governmental organization and control of medical practice.

Medical practice is in a stage of evolution. Conditions have practically wiped out the old family physician and it would seem impossible for him to become re-established in his old position of importance, although there are authorities who think that his re-establishment would solve many of the problems of practice. The independent specialist has largely replaced the family physician, and has brought with him vexing problems with dangerous potentialities. New complications have arisen and must be squarely faced, and a further transition in the practice of medicine must take place.

The question is, shall the transition be a natural one of evolution resulting from study and wide experiment by numbers of well trained thinking men, or will impatient people lay violent hands upon the problem and demand that it be entrusted to government agencies in a gigantic and dangerous experiment? We are, I may say, unqualifiedly opposed to such an experiment, which, we believe, would seriously imperil the health and happiness of the community.

PROGRAM PROPOSED

We may well be asked, if we reject government agencies, what constructive program have we to propose? Many answers will be given, for the problem is a difficult and intricate one and experimentation must be broad. However, two main lines of experiment seem to be developing. The first is the group practice idea, some form of which would seem to be a logical development in order to bring together the specialists, thus co-ordinating effort and increasing efficiency, reducing overhead expenses, and reducing and stabilizing professional fees. Such groups could care for a far greater number of patients and far more efficiently than could the individuals of the groups if scattered, and better medical practice at a much reduced cost might be the result.

The second line is the idea of the endowed hospital as a community center from which radiate health ideals through all its manifold services. Such a hospital should be organized to care for the sick at a cost commensurate with their financial resources, the deficit to be covered by the interest on the endowment. The governors of the hospital might well be selected from the group of donors to the endowment fund, donors who would be men of broad vision, vitally interested in the community life and the successful service of the hospital.

Such a great hospital would serve as a model for smaller communities and would stimulate widely the development of numerous hospitals along sound lines, that is, hospitals conceived in the spirit of community service.

CONCLUSIONS

"State Medicine" is an unfortunate term. It may be defined, however, as referring to any or all of the following extensions of governmental activity in the health field—compulsory health insurance, distribution of physicians, free and pay clinics, and complete control of medical practice as a public utility.

The medical profession believes that such an extension would be a perilous experiment and inimical to the public welfare, and it is unqualifiedly opposed to any activity tending toward such a program.

NEWSPAPER CARDS OF DOCTORS

A recent examination of many newspapers of the State shows that a certain percentage of the physicians of most county societies carry their professional cards in their local newspapers. The printed ethics or moral code of the medical profession authorizes cards of this character, provided they are sanctioned by the county society and provided further that no card shall express anything more than the physician's name, office hours, telephone and the limitations, if any, placed upon his practice. A certain amount of this character of advertising is going on in more than thirty counties of the state in a large number of papers. In most instances, the cards are thrown in indiscriminately with all sorts of business and professional cards, as well as those of irregular and frequently unlicensed practitioners.

If it is the policy of our county societies to engage in this form of advertising, it is suggested to them that they do it in a dignified manner, by resolution of the county society and by control of the wording in the cards by the committee on censorship, and, most important of all, by insisting on these cards being inserted "boxed" under the name of "County Medical Society Directory." The best example seen in any county paper from a recent survey is that of Stanislaus County, where the cards of many of the members are "boxed," thus controlling the space and distinguishing it from every other advertisement in the paper. Societies or officers interested in this question might secure copies of the Modesto papers by addressing Dr. R. E. Maxwell, secretary of the Stanislaus County Medical Society, Modesto. Nothing in this editorial should be construed as an endorsement by the State Society or the editor of the policy of placing cards in lay publications.

WHAT THE GENERAL PRACTITIONER CAN DO TO IMPROVE THE DIAGNOSIS AND TREATMENT OF DISEASES OF CHILDREN *

By LANGLEY PORTER, M. D., San Francisco

In the time allotted, some part of the matter involved can be touched upon, and as the specialty of Pediatrics is, in reality, no specialty at all, but merely the practice of general medicine among those of tender age, physicians may pardon a pediatrist if he joins in such a discussion.

Possible improvements on current methods of treating diseased children offer a wide field for discussion, wider even than would be afforded by a consideration of those things which might well be considered in an attempt to better pediatric diagnostic methods. For the term "treatment" must be taken to include not only curative measures, but prophylactic measures as well. Even though prophylaxis leads far afield into studies of nutrition, ante-natal hygiene, personal hygiene, school hygiene, recreational hygiene, and to an understanding of many other aspects of public health.

The questions that arise out of the growing lay interests in preventive pediatrics might well occupy this society through many hours of its sessions, for in such are bound up much that is momentous for the future of our profession. These problems and their possible solutions are so many and so revolutionary in their implications that the present offers occasion to do no more than merely to indicate a few of them. Certain it is, however, that the answer to the queries inherent in the title of this paper would be incomplete if it did not point out that one of the general practitioner's greatest contribution to pediatric improvement must come through the organization of a service of information, advice and education to parents, designed to keep the children of the community in health. Such a service must begin by instructing the mother about her unborn baby. Later during the child's infancy it will be continued, and it will insist on properly supervised and adequate breast feeding when this is possible, or, in the event of a failure of the breast secretion, upon a well-guided course of artificial feeding. Already, such endeavors as these are enlisting the sympathy and effort of many physicians, but such a service must go further. Oversight of the nutrition and of the personal hygiene of the runabout child, should be a duty added to the many others under which the general practitioner staggers, and, at this point, even, he must not halt for the individual well-being of the school child, and the conservation of the adolescent's mental and physical health are essentially medical problems to be solved by the physician in general practice.

If we maintain our leadership in matters of health, we must be prepared to organize as part of our practice health services on some basis of proper remuneration, for, whether we like it or not, service must be given and leadership of the fast-growing health movement must be seized, otherwise not only will we fail in our duty, but we will lose the confidence and respect of our communities; a confidence and respect which has come to us as an inheritance from a long line of devoted general practitioners. It is for us to earn and to hold a continuance of this confidence and respect. Although only the medically trained can hope to accomplish results of real value, lay organizations, some of them hostile to our profession, already are reaching out to do much of the work. No matter how we as individuals view it, the movement for general health education is here, and it is here to stay.

The neurotics of the future are being trained today, trained by mothers, grandmothers and nurses, whose mistaken efforts to be kind often develop egocentricity and willfulness in their charges, and the physician who knows how suggestible children are, and who is aware of their tendency to negativism and egocentricity has to counteract this training, and to instruct parents how to treat their children so that they shall not grow up neurotic. To persuade mother or auntie or any other doting relative that it is kinder to keep an adored youngster out of the limelight, away from the center of the stage, and to revive in practice the old adage, "Children should be seen and not heard," will demand all that any man has of fortitude and patience.

No more important contribution to Pediatrics has been made than that which follows from the pioneering of Howland and Marriott on the importance of maintaining a normal fluid balance in the young child's body. The recognition of the urgency of the need for rapidly restoring fluid to compensate that lost from the tissues has been followed by a new emphasis on the value of the subcutaneous, intravenous, and intraperitoneal routes, for the injection of sterile normal saline solutions. Of these routes, the intraperitoneal is usually preferred unless peritonitis, or abdominal distension complicates the clinical picture. When the peritoneal route is chosen, it must first be determined that both the bladder and the stomach are empty, and that intra-abdominal disease is absent. The fluid may be injected by gravity or from a Luer syringe. It is important that the needle used shall have a short bevel (2 mm.). The tissues of the abdominal wall are seized about an inch below the umbilicus, between the thumb and fingers of the left hand. The needle is passed through that part of the abdominal wall which is included in the grasp of the digits. In this way the passage of the needle is guided, and the underlying viscera are protected. Once the needle is through the wall, the shank is depressed till it lies almost parallel to the skin, and it is then thrust gently upward. The shank is then connected, and the fluid flowing slowly is allowed to enter from either the gravity glass or from the Luer. Pains must be taken to maintain the temperature of the fluid at 100 to 101 degrees, for the fluid, as it flows from the

* Read before the Fifty-first Annual Meeting of the Medical Society, State of California, Yosemite Valley, May, 1922.

needle-point, will be about 3 degrees colder than it is while in the container. Certainly a mastery of this technique and a wider use of this method by the general practitioners will tend to improve the treatment of disease in children.

The more frequent employment of glucose in intravenous injection, another desirable measure too little used, also offers the profession opportunity to improve its therapeutic methods. The great value of this measure rests upon the fact that under the stress of non-diabetic ketonuria, of the acidosis, which complicates vomiting and diarrhœa, during general infections and in most toxæmias, the glycogen reserve of the body becomes depleted and the reserve can be augmented, and to some degree restored by the intravenous use of glucose. The method has also the advantage that glucose in hypertonic solutions of from 10 to 15 per cent draws fluids from the tissues into the blood stream, and also acts as a diuretic. Unfortunately, we have been taught to fear the use of sugars. Nevertheless, the only way to maintain the glycogen reserve in the presence of acidosis is to give glucose or lactose solution freely by mouth. Often if quantities of such a sugar solution, well diluted, are given persistently, and in spite of the emesis, vomiting will be promptly aborted and checked. In persistent or in neglected cases of cyclical vomiting, when sugar by mouth alone is ineffective, the intravenous injection of 10 per cent glucose solution is life-saving, and the intraperitoneal injection of normal saline solution is an invaluable adjunct.

The general practitioner who is earnestly endeavoring to improve the treatment of children, would make no mistake if he resorted to a more extensive use of hydrotherapy. Packs of mustard, hot, tepid or cold—full packs or one-half packs—and baths will really do all that antipyretic drugs are vainly expected to accomplish.

If an increasing knowledge of hydrotherapeutic methods led to the abandonment of many antipyretic drugs in pediatric practice, much would be accomplished for the benefit of sick children. There would certainly be a great advantage in the development of an attitude of distrust for too much drug therapy in general. A determination to use drugs only where specifically indicated, under circumstances in which the physiological action of the drug makes it a logical weapon against the pathological process which is causing distress, would be the mark of much progress.

The practitioner who is able to escape the overuse particularly of laxative and purgative drugs, and who can attain the results he seeks by wise regulation of diet, regime, exercise and habit training, and hydrotherapy, certainly is contributing to better the treatment of disease in children. So, also, is that man who himself has learned and who has taught the nurses and the mothers of his patients that a vomiting child who is constipated is to have its bowels moved by enema only, that under no circumstances shall purgative drugs be given it, for fear that an obstruction of the gut has occurred. The admonition may be of use but rarely, but the general application of such a rule might have saved some of the babies who have died after intussusception or volvulus or the strangulation of a hernia.

The unnecessary mortality rate in diphtheria, dependent upon delayed diagnosis or upon inadequate dosage of antitoxin, is a constant reminder that in this field, at least, there is opportunity to improve diagnosis and treatment. Here clinical signs may be misleading and the laboratory a fallable aid, but for the child's sake, let it never be forgotten that it is harmless to give antitoxin unneeded, and murder to omit when it is needed. The practitioner who knows what Park and his associates have done, and who practices to elucidate the problems of treatment and of prophylactic in diphtheria that they have taught, is surely contributing much to the betterment of medicine, especially if he has come to use antitoxin by intramuscular injection rather than by subcutaneous. He ought also to have in mind that intravenous injection can possibly be used in the treatment of neglected or of very toxic cases. When he does find it necessary to use the vein for injection of antitoxin, he must scrupulously observe the technique of desensitization.

A wider appreciation of the value of antidysentery serum would be an advantage to many infected children, if it led to more frequent use by intravenous injection in those patients who have become deeply intoxicated. The more frequent use of polyvalent anti-streptococcus serum in those patients whose blood stream has revealed infection by blood culture, might not accord with the views of all authorities, but well diluted in hypertonic glucose saline, given slowly, this serum will often prove to be life-saving; under the same pathological condition, the additional use of transfusion by the direct or indirect method in these septic cases amplifies the possibilities for good. A more frequent resort to transfusion, always with due regard to its proper technique, offers the physician opportunity to save lives. Even the intramuscular injection of whole blood, simple as it is, is a neglected procedure in spite of the fact first demonstrated by Oscar Schloss that it checks idiopathic hemorrhage of the new-born with promptness and certainty. It is hardly less valuable as an adjunct to dietetic measures in the treatment of infantile anæmia and nutrition.

A glance over the domain of dietetics, nutrition, and therapeutics, reveals other fields that might reward the physician's closer cultivation. Vitamines are flung at us from every angle until we are, as the English say, "quite fed up on them," and with all the pother, we have learned just what our forefathers knew and what every physician knows, that is, that fat and green vegetables and the parts of grain next the pericarp are essential to complete nutrition. It is not to be wondered at that many physicians in general have been turned away from interest in foods and feeding by pesky percentages and the curse of calories wished upon them by the higher-browed mathematicians in signed and cosigned pages of

formulæ. Certainly, when the United States Bureau of Child Hygiene send broadcast such pernicious misinformation as is embodied in the statement that a child of any age who has no more than four teeth should be restricted to a fluid diet, it is time that medical men awakened to a deeper interest in nutritional and dietetic problems. Such awakened interest is needed to enable the profession to combat fallacies of this sort, and if the interest is gained the reward will be an added power for good work in the prevention of disease.

A simple catalogue of possible improvements in the treatment of sick children could easily run beyond the bounds of this paper, and hardly do more than touch the limits of the subject. To mention all of the possible ways and means that might aid us to improve the diagnoses of those children's diseases which so often trick us into error might well fill a volume.

Primarily, however, it is true that the better diagnosis will be made by those who remember that children, as children, possess positive anatomical and physiological peculiarities. Failure to recognize this fact leads to improper treatment. These essential peculiarities impose a special routine for the physical examination of children, quite unlike that best adapted to adults.

John Thompson, one of the wisest of those who write about sick children, has pointed out that in the examination of a child, the best information is not to be had by exploring one physiological system after another as is normally done in the investigation of adult ills. Much more valuable is a procedure based upon the use of one method of physical diagnosis after another. The most important of these methods is proper inspection.

Many a regret would have been spared had it never been forgotten that a child should always be completely undressed for a physical examination, but the child who is beyond infancy should not have its clothes taken off in the presence of the doctor. If the wilful, egocentric baby of from one to three years who struggles and screams at the slightest provocation is undressed in a room apart from the physician, and wrapped in a blanket or gown that opens down the back, he can be examined more easily. He can be brought in to the examining room on the mother's or nurse's shoulders, and with his back toward the doctor, sometimes before he is even aware of the physician's presence, the head, ears, skull, back, buttocks and legs can be inspected.

The physiological peculiarities of the well child are paralleled by a series of marked and equally significant pathological alterations in the case of those who are ill. These alterations bring about expressions of disease, and disease peculiar to children. The same sorts of pathological agents may produce clinical pictures in sick children different from those they bring about in adults; so different, in fact, that sometimes it is hard to believe the causes of the sickness identical. Then, too, certain maladies are prone to attack children, and others quite commonly found among adult patients are so rare in early life as to be curiosities. Acute rheumatism, for instance, is almost unheard of in a child younger than three years, yet scurvy, common in the second and third years of life, has been mistakenly called rheumatism.

In examination of the infant, complete and searching inspection is more richly rewarded than is any other single means of eliciting information. The facts derived from inspection taken in the light of the history of the patient's indisposition, and with a due consideration of the natural history of disease in childhood often suffice for diagnosis, although other indicated physical and laboratory means must not be neglected. It is certainly no exaggeration to say that diagnosis could be bettered if every one who deals with sick children would devote more time to a study of the possibilities of inspection.

The position in which the child carries the head may reveal information of much value. If it is retracted, it at once suggests postcervical adenitis, which may be the result of an infected adenoid, or be a part of a retropharyngeal glandular infection, or, less frequently, it may signify a meningitis. Held to one side, the idea of an immobile torticollis or of the unusually occurring cerebellar tumor may be brought to the mind of the observer, and give him a lead. In a like manner, the child flushed with fever who protects one side of his head with the hand or by pressure against the mother's shoulder, will afford a clue which makes thorough search of the ears and mastoid imperative.

Amount and quality of the hair at once mark the state of the child's nutrition and, together with the character of the bony development in the frontal and parietal regions, give information which will reveal or exclude rickets. A look at the occipital scalp of a bed-ridden child, who has been the victim of an unexplained fever with distress, sometimes reveals the cause of the pyrexia to be a furuncle hidden in the hair, which may have been overlooked because the physician himself has not sooner raised the back of the child's head from the pillow for scrutiny.

The bulging fontanelle, the separated sutures and the peculiar eye appearance of the hydrocephalic are at once apparent, and not less noticeable is the wedge-shaped insufficient vertex of the microcephalic with the blank, staring faces beneath it.

The expression of the child's face usually reveals at once whether the mother's anxieties are justified by the real sickness, or unjustified and merely the result of her ignorance and the child's naughtiness. The anxious-looking baby with a flushed face, an obliquely held eyebrow, a slightly open mouth, the fluttering wing of whose nostrils suggest pulmonary involvement, demands prompt and thorough chest examination.

The puffy face that goes with renal disease is distinctive, but puffiness may also mark giant urticaria. Quite diagnostic is the trismic smile,

earliest sign of tetanus, and equally informing, the weary, aged faces that develop in the course of a protracted disease such as chronic diarrhœa, peritonitis, empyema, and the low-grade osteomyelitic infections. Nor is the dried-out aspect of the baby who is subject to an acute attack of vomiting and diarrhœa, open-eyed, staring, with depressed fontanelle, and hollowed cheeks to be mistaken any more than the peculiar look of sage thoughtfulness, with shut eyes, slightly retracted head, and close-clenched jaws that mark the chronic meningitic. These are almost as recognizable as the open-mouthed appearance of nasal obstruction. One important revelation that sometimes rewards inspection is the discovery of an edema about the mastoid region. When one ear is forced away from its normal relation to the scalp and head, and, when looked at from behind, occupies a position quite unlike that of its fellow, underlying mastoid-cell infection may be inferred, although it must never be forgotten that the same sign may result from a single abscess of the postauricular glands. Such an abscess is a not infrequent complication in the presence of abrasions of an unclean, it may be a pediculous scalp. The swelling in front of the ear overlying the upper part of the parotid and the zygoma is as important an index of mastoid involvement as bulging behind the ear, and such swellings mean that there is an imperative need for surgery.

A look at the torso of the naked child may be equally informing. It is astonishing how easily even slight degrees of difference in the chest movements of little children may be discovered, but the light must be bright; it must fall equally and unshadowed, while the observer should stand at some distance behind the patient. A scrutiny of the front of the chest to note the position of the apex beat, percussion and radiography in order will confirm the suspicion that fluid is in the pleura or reveal a consolidation, unless some rarity such as sarcoma is complicating the findings. Inspection that reveals the slightest limitation in the flexibility of the spine justifies suspicion of spinal caries. The usual child is a wriggling, restless creation, and its flexible spine is invariably making some twist or other. A history of pain in the belly, or of pain developed by jarring, makes it doubly probable that early Potts disease is present. This malady brings with its full development such hideous crippling that the physician alert for his patient's interest must keep its possibility always in mind, because often, if diagnosis is made early and proper treatment is promptly adopted, the disease can be checked.

Through frequent and careful oversight of the spines of the children who come to him, the general practitioner may discover curvatures and postural defects, and by measures of corrective gymnastics overcome such defects while they are easy of correction. It is doubtful if any single division of pediatric endeavor will better reward the general practitioner than a study of the application and principles of corrective and prophylactic gymnastics, a study which will enable him to restore normal posture and to improve the nutrition of children.

It would pass the bounds of this paper to catalogue all that is to be learned from inspection of the extremities, especially of the hands, or from simple observation of the abdomen.

There are certain children's diseases readily to be recognized because the appearance, attitude and expression of the patient testifies to their presence. Of these, two, infantile scurvy and mongolism, sometimes reach the hospital unidentified or misdiagnosed. In appearance, the sufferers from scurvy are pale, irritable, with pain expressed in every feature. They lie in a state of pseudoparalysis, inert, with the thighs drawn up, guarding one or both legs, or perhaps an arm from movement or interference. Perhaps with bruises here and there on the skin, sometimes with a one-sided proptosis, the result of a hemorrhage, which has invaded the subperiosteal region of one orbit. Other subperiosteal hemorrhages usually of the long bones, but especially of the femurs, may be present and palpable. When there are erupted teeth or teeth about to erupt, the gums are spongy, swollen, and ecchymotic; too often sloughs may be found, sequels of a mistaken resort to that ancient barbarity, the gum lancet. Such a clinical picture is pathognomonic. Not less so is the typical history of an infant too long fed and too exclusively fed on cooked food, usually boiled, condensed, commercially pasteurized or dried milk, or on some proprietary preparation without the compensation of vitamine-bearing substance such as orange juice, green vegetables, and cod liver oil. For a long time the little patient has been pale, irritable, capricious in appetite, resentful of even the gentlest handling. As the days and weeks passed, such symptoms increased in intensity, and it was noticed that the child bruised easily, and one day developed swelling about one or another joint. The baby later fell into the condition of pseudopalsy, which brought the parents to their doctor for advice. No other disease of childhood much resembles this quite common malady, and yet, not infrequently, it is mistaken for rheumatism, an affection so rare in early childhood that it can truthfully be said not to attack before the third year. Sometimes these infants fall into the hands of osteopaths and chiropractors, whose manipulations are especially torturing to the tender flesh of the scorbutic.

Mongolism, a condition that comes with obvious mental deficiency, deformed head, ears, and nose, chubby hands and feet, seems often to be confused with cretinism, a physical state in which these peculiarities are also to be found, but the slant eye, smooth, fine skin and fine, sparse hair, and extreme hypotonicity of the mongol, mark its condition as one apart from cretinism. For, in cretinism, the hair is scant, it is true, but coarse. The skin dry and rough, the eyes are normal in shape and position, and hypotonicity is not a feature. A cretin shows besides these features its chubby hands, its myxedema, the aged expression of its face, and peculiar distribution of its sub-

cutaneous fat pads. The subnormal temperature, and the extreme constipation of the child are added points that distinguish the hypothyroid patient, and indicate the need for thyroid feeding.

Quite often, pyelocystitis, commonest cause of fever and malaise in girl-babies is overlooked. Doubtless, this oversight comes because its great prevalence between the eighteenth and thirtieth months of life is forgotten, and perhaps, too, because it is thought a difficult matter to obtain urine samples from young girl patients. It is always possible to catheterize a girl child, and if scrupulous surgical cleanliness is insisted upon no harm can follow. W. P. Lucas has made it possible to obtain urine from girl-babies as easily as from boys, by his discovery that the ordinary cheap glass bird-bath to be found on canary cages is a utensil perfectly adaptable as a urine collector. Such a glass bath can be sterilized, and then be applied to the vulva and fastened in place by the pressure of the pinned diaper. The routine use of such a device will make it possible always to examine the urine of girl-babies, and to render the diagnosis of urinary disease generally possible. For collecting the urine of a boy, nothing is better than a rubber glove. The boy's genitals can be included within the wrist of the glove, which is to be fastened in place by adhesive plaster.

Another rather common disease, hypertrophic pyloric stenosis is a disorder with a distinctive clinical picture, yet it sometimes eludes diagnosis, a misfortune for its victim, for when diagnosed early the treatment by dietetic or operative measures is almost uniformly successful. If every physician would make it a rule to make thorough inspection of the complete, naked bodies of his baby patients, no instance of pyloric stenosis could escape detection, especially if in addition the inspection of the infant's abdomen were made while the child was nursing. Under these circumstances the very characteristic epigastric wave produced by the contracting stomach is easily seen as it passes across the upper abdomen, running at the rate of about twenty contractions to the minute, and equally visible and as striking will be the peculiar, huge, bulging, epigastric area in its contrast with the narrow flattened hypogastric region. Such findings in the case of a constipated baby who began to vomit between the second and fifth weeks of its life, and who continues to vomit persistently and explosively, who passes little urine and shows the results of fluid loss should be enough to rescue the little one from protracted attempts to find a suitable diet. One diet only, the thick, gruel milk feeding holds any promise of help for such a patient. If this fails to check vomiting and to initiate gain within a few days, then a recourse to the Fredet muscle-splitting operation is indicated. With proper surgical technique, provided the patient is not already moribund, this operation is almost certain to be crowned with success.

A more general realization that spastic paraplegia and spasticity, with mental defect, many times are referable to injuries from too prolonged labor rather than from damage by the forceps which terminated the labor, or to the blood dyscrasis which it is now popular to blame, and that earlier resort to forceps, or, if need be, to Cæsarian section, might be productive of much good to childhood were it more encouraged among those general practitioners whose work includes obstetrics.

It may be said that the practitioner or specialist can improve the diagnosis and the treatment of disease in children in just the same way that he can improve the diagnosis and treatment in any other department of his practice by keeping himself well informed about the bases of medicine, as well as about the peculiarities of the special work. It may be that the fate of many a child would be bettered if we were more critical in the selection of patients for tonsillectomy. The fact that brilliant results follow the removal of diseased or obstructing tonsils is no warrant for the idea that every visible tonsil is a criminal to be forcibly guillotined or guilefully snared to its destruction, and the disillusionment of physician and parent would be less were it more clearly recognized that there are other common causes of persistent mouth breathing than adenoid growths, and that the mere removal of these when present will not make it possible for the child with a high arched palate, deviated septum, enlarged turbinates and anterior rhinitis to breathe through its nose. For a remedy of the high-arched palate we must turn to the orthodontist. The changes in the anterior nares demand long, patient, and painstaking treatment after the removal of the tonsils and adenoid. Not only this, but the general condition of the patient must be improved. Long before tonsillectomy came into vogue, Iodide of Iron was a potent remedy which, together with proper feeding and hygiene, put many a child in condition to fight off the ill-effects of enlarged tonsils or infected adenoids, and used in the same way, it still is potent as an adjunct to the local measures indicated after the removal of an adenoid and tonsils.

Not only for orthodontic aid do we need to call on the dentist. Decay in deciduous teeth most often comes first to the attention of the attending physician. To him also comes the convincing evidence that the care and filling of this early set of teeth is one of the most fruitful prophylactic measures at his command. Unfortunately, he will have to struggle not only to convince indifferent parents, but to overcome the active opposition of dentists, many of whom are unwilling to give their time and detailed work to the preservation of temporary teeth. Fortunately, the dentists of the present generation are coming to their task with a training that makes them able and willing to help the physician in this matter.

Diseased tonsils, bad teeth, nutritional disturbances, and faults of hygiene make up a list to plague those of us who deal with children, but tragedy rarely attends among these, but there are afflictions swift and terrible in their onset for which we must ever be on the watch lest death

catch us unawares and carry off our patient before we sense the danger. Every sick child should be to us a possible victim of these deadly things until we have excluded them one and all—diphtheria, bowel obstruction, appendicitis, especially intussusceptive; mastoiditis, retropharyngeal abscess, early Potts disease, dysentery, typhoid—fortunately, there are not so many. All of them we should have in mind, and their earliest known signs and symptoms should be as familiar to us as the letters of our alphabet. Not only so, but in our reading we ought always to be especially on the lookout for new information about these deadly enemies of childhood.

For the diseases of children this can best be done by knowing well how to refer to late editions of standard books, and a good journal or two such as the American Journal of Diseases of Children, and the "Archives of Pediatrics" should find a place on every practitioner's desk. The perusal of such journals and books kept handy for ready reference will elucidate the peculiarities of physiology and pathology which make the manifestations of disease in juvenile patients so perplexing, especially to those who approach children as if they were adults with an adult psychology and adult types of pathological disturbances. The knowledge so gained will emphasize the need for special methods of attacking problems of physical diagnosis and for special information about the peculiar natural history of certain common diseases as they affect children. Moreover, such a plan will clear many of the problems of infantile nutrition and bring a juster appreciation of the influence of personal and school hygiene.

240 Stockton Street.

OSTEOPATHS USE A PLUMB-LINE AND SPIRIT LEVEL TO FIND A PERFECT SPINE

(Quoted from the San Francisco Examiner of Sunday, April 2, 1922):

"We feel sure that there is no such thing as a perfect back in existence. Almost every person can remember having at least one fall or twist or accident that at some time or other wrenched or twisted their spine so that they were laid up or uncomfortable for a day or more. These are all recorded in the spine. . . . The quite astounding fact seems to be that brunettes have better backbones than blondes. That is, the brunette average up to date has been far ahead of the blonde average."

BULLETINS OF THE AMERICAN MEDICAL ASSOCIATION

All physicians interested in the activities of the national organization, the House of Delegates or Council on Medical Education and Hospitals and other official bodies of the A. M. A., should be subscribers to the Bulletin of the American Medical Association. The proceedings of the conference of national officers and state secretaries, held in Chicago last November, will be found in recent numbers of this Bulletin. The annual subscription to the Bulletin is 50 cents, and letters should be addressed to N. P. Colwell, M. D., Secretary of the Counci on Medical Education and Hospitals, 535 North Dearborn street, Chicago.

COMMON PARASITIC DERMATOSES IN SOUTHERN CALIFORNIA*

By MOSES SCHOLTZ, M. D., Los Angeles.

It is my purpose to call attention to the great prevalence of certain parasitic dermatoses in Southern California. Examination of private and clinical records convinces me that parasitic dermatoses due to ectogenous infection make up not less than 29 per cent of the total number of skin diseases.

I have deliberately omitted all rare and spectacular dermatoses, such as leprosy, granuloma coccidioides, actinomycosis, and lupus, and have limited my remarks to parasitic dermatoses that the family physician is called upon to treat in his daily practice.

This reduces the consideration to skin lesions caused by streptococci-streptodermias; those caused by staphylococci — (staphylodermias); tinea and scabies.

That these four parasitic dermatoses make up not less than 29 per cent of skin diseases merits serious attention by physicians.

It is the purpose of this paper to present these parasitic dermatoses, as they have occurred in clinical work, to review their most striking characteristics and to outline briefly their diagnosis and treatment.

Streptodermias — The most widespread of all parasitic dermatoses are those due to streptococcic infections (streptodermias). It is surprising how little streptodermic lesions are known to the general profession. Impetigo contagiosa is better known, and yet it constitutes only a very small minority of streptodermias.

There are quite a number of clinical forms of streptodermias of common occurrence. The list includes persistent intertriginous patches, cracks or fissures in the corners of the mouth—so called perleche, and similar lesions in the retro-auricular, naso-labial, axillary and inguinal folds. Another rather common form is the inflammatory patchy form streptodermatitis. It occurs in single or multiple patches, most often on the limbs or the trunk of the body and, if left untreated, may last many months and even years.

These lesions usually diagnosed as plain chronic eczema, and treated with bland, indifferent ointments, such as zinc oxide, boric ointments, and Lassar paste. Occasionally they are regarded as syphilitic lesions with which they have a considerable resemblance.

The clinical features of the various types of streptodermatas are sufficiently characteristic to make clinical diagnosis secure. The principal features are: sharply defined circinate borders of deep dark red color or occasionally suggesting violaceous. The lesions feel soft, with a soft, thin crusting. Itching is slight or absent; infiltration is never as deep as in syphilis, and the surface is never harsh and rough as in plain eczema. An important differential feature is that common

* Read before the Southern California Medical Society at the San Diego Meeting, April 7, 1922.

eczema always has ill-defined borders and diffuse vague outline. Whenever any part or the whole eczematous patch begins to show sharply defined and circinate borders it is a safe indication that a secondary infection of streptococci, staphylococci or seborrhoic contagium is present.

The treatment of the streptodermias is very simple. Washing and removing of all crusts and deposits is the first and the most important step. Mercury amoniate ointment 2-5 per cent acts as a specific in almost all patients. Exceptionally it fails, and then sulfur and salycilic acid of the same strength in ointment is indicated. In cases of streptodermatitis with any amount of infiltration due to secondary eczematization I prefer to use crude coal tar ½ per cent in Lassar paste. In generalized and extensive cases ultra-violet light exposures are a most powerful and elegant method of treatment.

Staphylodermias—As a diagnostic problem staphylodermias are much simpler than streptodermias. In pure cultures staphylococci are apt to produce follicular lesions, such as folliculitis, furuncles and carbuncles.

Sycosis staphylogenes—Among various staphylodermias sycosis deserves special mention because of its chronicity, rebelliousness to treatment and the great distress caused by it. Diagnosis should not be difficult and should be made essentially on the presence of discrete or confluent follicular abscesses limited to the hairy part of the face. From a therapeutic point of view it is important to remember that in sycosis, as in tinea capitis, the parasite nests at the bottom of the hair root; hence, no treatment short of epilation can give lasting results. The painful method of pulling hairs one by one with the forceps should be superseded by X-ray epilation. After epilation is effected in sycosis, antiseptic ointments and washes are used before the new hair comes in. With the hair follicles open, antiseptic local applications easily penetrate to the seat of infection and effect a lasting cure. Staphylococcic vaccines, autogenous or stock made, are efficient and strongly indicated in furunculosis and carbunculosis, but they are very uncertain and unreliable in sycosis.

Tinea—In its various forms tinea occupies a place among parasitic dermatoses second only to streptodermias. The prevalent notion that the so-called ringworm presents always ring-like lesions with a clearing center and active edges is erroneous. Only a very small minority of tinea lesions, probably those due to a certain strain of fungus, is of ring-like shape. Diagnosis of tinea of the body is made clinically on the presence of sharply defined borders—dry, scaly deposit on an inflammatory or non-inflammatory base, superficial slight infiltration, or none at all, round, circinate or segmented shape and extension by continuity. While the presence of the fungus by microscopic examination constitutes a decisive test, it is necessary only in the exceptional cases. In the overwhelming majority of cases a clinical diagnosis is possible. In tinea of the scalp the additional clinical evidence is the presence of patchy alopecia hair stumps of dull, dusty, and lifeless appearance, together with weakness and brittleness of the hair. Tinea of the scalp is not more prevalent than other types, but from a therapeutic and social point of view it presents a grave problem because it affects mainly children of the school age and often keeps them out of school for many weeks and months. The choice of antiparasitic application is of little importance; sulfur, salycilic acid, mercury, phenol, all clear up and improve the surface of the diseased area. The best application is 3-5 per cent solution of chrysarobin in traumaticin. The reason for the stubborness and tendency to relapses of tinea of the scalp is that none of the local applications reach the bottom of the hair follicles while the hair is in. For this reason the chronic stubborn generalized cases of tinea of the scalp can be radically cured only by X-ray epilation. The hair grows again from two to four months. After epilation antiseptic applications are kept up on the bare scalp to destroy the rest of the fungi. Tinea cruris is the next in frequency. The interesting feature of this type is that, while it occurs like its counterpart on the hairy parts, the hair, unlike those of the scalp, remains unaffected. This is because the fungus in these places remains on the surface and does not penetrate inside of the hair follicle. For this reason tinea cruris can be cured with various antiparasitic applications without epilation. For the same reason tinea cruris does not produce patchy alopecia and does not alter the vitality and the appearance of the hair. However, the treatment of tinea cruris presents its own difficulties. The first one is the extreme tenderness of the skin of the genito-crural region. It is rather difficult to select a strength of antiparasitic application sufficient to destroy the fungi and yet not strong enough to irritate the skin. It is quite common to see patients with tinea cruris with the skin acutely inflamed or actually blistered by the local medication. The most efficient and elegant treatment of tinea cruris is radiation with ultra-violet rays from a good quartz lamp. The specific virtue of ultra-violet rays in these cases is in an even diffusion and penetration of the rays in all the irregular lesions as well as in covering a large area beyond the visible borders of the affected area. With daily exposures to quartz lamp, antiparasitic applications can be dispensed with. The reaction from the radiations should be brought to a distinct erythema and exfoliation. Blistering is not advisable, though it does no harm.

Tinea axillae is much rarer than tinea cruris. The treatment of both conditions is identical.

Tinea of the toes has been lately subjected to considerable study, and its clinical types are quite well established. Bacteriologically, it has been identified as being caused by an Epidermophyton. The most common location is between the toes and the soles. Clinically, it resembles very closely ordinary intertrigo, vesicular or squamous eczema, pompholyx, and pus infection. Accurate diagnosis can be made only by bacteriologic methods. But in the majority of cases it can be recognized clini-

cally, or at least suspected by lesions showing well-defined circinate margins, epidermal collarettes, and spreading by extension. The treatment is the same as in other types.

Scabies—Scabies seems to be so simple and so well defined as not to admit of errors or confusion in diagnosis. Yet it is surprising how many cases of scabies remain unrecognized. There are several sources of errors. The first is the prevalent notion that scabies is a disease of slums and that it does not occur in good society. Many physicians on that account are prone to overlook scabies in their well-to-do patients. I have seen almost as many cases of scabies in private practice as in the clinics. Another source of error is due to mild or abortive cases of scabies which are usually seen in cleanly people and families. In these cases lesions are very insignificant and may consist of a few widely scattered top-scratched papules, presenting very little resemblance to well-developed cases of scabies. Such cases may be mistaken for eczema, and in children they are frequently mistaken for a food rash. The true nature of these cases can be readily identified by the following clinical features: the papules are not inflammatory, top scratched and hemorrhagic. They are discrete, and show no tendency to run together into ill-defined inflammatory areas, as in eczema. They are located preferentially on flexor surfaces on widely scattered parts of the body. The burrows may and may not be seen. Secondary eczema and impetigino-like lesions are particularly common in children and individuals with a tender and irritable skin. These secondary lesions may dominate the clinical picture to such extent as to mask completely the underlying primary condition of scabies.

The treatment of scabies is simple enough to be standardized. Sulfur 5-10 per cent alone or in combination with tar and green soap, in the form of Wilkinson ointment, is a specific. Two points, however, should be kept in mind to avoid mistakes. The first is to guard against sulfur dermatitis or sensitive skins by stopping treatment at a proper time. The second is a possibility of the persistent complaint of itching in neurotic individuals after an apparent clinical cure.

CONCLUSIONS

Ectogenous parasitic dermatoses are very common in Southern California. They make up about 30 per cent of the total number of skin diseases.

The most widespread in the order of frequency are streptodermias, tinea, scabies, and staphylodermias.

A more thorough isolation of skin lesions caused by streptococci, staphylococci, tineae, and scabies should be enforced in schools and in homes.

A sanitary inspection of domestic animals, particularly dogs and cats, in all homes where cases of tinea are reported, is highly desirable, as these animals seem to be the main agencies in spreading tinea.

Cases of tinea and scabies should be reportable.

(Brockman Building, Seventh St. and Grand Ave.)

FACTORS CONTRIBUTING TO SUCCESS OR FAILURE IN GROUP MEDICINE

By E. V. FREDERICK, M. D., Reno, Nevada

Why do medical men attempting to work together in a group sometimes fail? William Mercur of Pittsburgh in a personal communication says:

"I have been investigating the subject of group medicine for the last ten years and my report is based on the forty-three failures out of the forty-five groups I have investigated. My opinion as to the causes of failure are: (a) Based on wrong ideals; (b) Improper selection of staff; (c) Organization defects; (d) Use of voluntary workers (applying to charity clinics)."

The basic thought in medical ideals is better service to the public. Group work aims to accomplish this by greater accuracy in diagnosis; by eliminating errors; by checking up and minimizing the weaknesses and peculiarities of the individual diagnostician; by massing an equipment, the most important part of which is brains; by utilizing the services of technicians and lay assistants and mechanical and laboratory equipment; and by specialization in treatment.

Group practice also aims to provide better service to the public through a scientific handling of the rest and fatigue of the staff, thereby giving them time for reading, recreation, or post-graduate study; and by unloading petty and aggravating detail from busy highly trained specialists to lay helpers trained to handle these matters.

Wrong ideals are primarily responsible for the failure of some groups. Some groups are formed primarily for financial gain, which may be secured by a number of well known activities based upon business ethics but out of harmony with the highest ideals of the medical profession. Groups of this character usually fail because they fail to secure the confidence and respect of their colleagues, without which neither the individual nor the group can progress far; and they also sooner or later lose the confidence of the public.

False ambition and egotism invite failure. Some physicians have the mistaken idea that a group of general practitioners makes a clinic; that a general practitioner joining a group becomes a specialist, entitled to a specialist's fees overnight, and what was an ordinary opinion under one circumstance becomes the opinion of a specialist under another and worthy of an increased fee.

Improper selection of a staff or ignorance of the qualifications and type of men required for successful group work is another chief cause of failure.

Excluding the groups formed around one prominent man by his assistants; by a father and his several sons, all members of the profession; the partnerships of brothers with a paid understaff, and similar organizations, how can a number of ordinary medical men work together successfully to the benefit of their patients and themselves without inviting failure?

The primary difficulty in forming a group of this character is that no one wishes to admit the leadership of another, and the attempt frequently is made to function with all the staff equal in

management. Any such group is certainly doomed to failure because they are attempting the impossible. A directing head is absolutely necessary if success is to follow and to insure that the individual labors of each member of the group shall be utilized in the attainment of common results. This one-man control, although essential, also has its disadvantages and may lead to abuses of authority. The form of organization that is practical and just is one in which the entire responsibility is placed on one person of the group with provision for certain checks by which his work is susceptible to review by other members of the organization.

The greatest problem in any group organization is to find a directing head. Such a leader must fulfill the following requirements:

(a) He must have a personality which will not antagonize his equals and which his superiors, if he has any, will respect and his inferiors honor.

(b) He must have a wide knowledge of men and women and how to organize, energize and inspire those who are his co-workers.

(c) He must be trained in the principles of scientific management so that peak loads will be avoided in the group's work.

(d) He must be well acquainted with methods of finance to carry the organization over the bumps which are sure to arise.

(e) He must have an expert knowledge of the "clinic" system of clinical routing and "check-up" system of diagnosis and interdepartmental consultation, so that he can guide the internal machinery of the staff.

(f) He must be fairly well grounded in laboratory work so that he can veto unnecessary foibles which increase overhead beyond income, or so that he can introduce into routine procedure valuable methods which will bring income above overhead.

(g) He must have knowledge of the method of keeping an up-to-date "Procedure System."

A MANAGER WITHOUT ALL THIS KNOWLEDGE IS A BLIND MAN LEADING THE BLIND AND THE GROUP IS SURE TO END IN FAILURE

Even with a perfect directing head and a number of specialists the professional staff may still fail to function as a group because of lack of special training for group work or unwillingness or inability to overcome individual habits. Successful group work is a specialty in itself.

Causes of individual failure are:

(a) Inability of old dogs to learn new tricks or unlearn selfish habits.

(b) Inability or unwillingness of the individual to change from a memory system of records and case histories to an extensive paper system with considerable time-consuming detail.

(c) Failure to properly co-operate with other members of the group in the production of "team work."

As Kipling says:

"It ain't the guns nor armaments
Nor the funds that they can pay,
But the close co-operation
That makes them win the day.
It ain't the individual
Nor the army as a whole,
But the everlasting team work
Of every bloomin' soul."

(d) Desire of the individual to push his fads and foibles.

(e) Ignorance of "Clinic" diagnostic routing and laboratory "check-up" systems and inability to reduce all data to complete diagnoses. In this regard Louis Wilson says: "Unfortunately, it is true that the average training of the clinician of today is sadly defective on the laboratory side. . . As a result, when there comes to him concerning a patient the data furnished, say, by a complete examination of the urine, by an examination of the blood, by an examination of the gastric contents, by an examination of the feces, by a fluoroscopic examination of the alimentary canal, by a bit of tissue clipped from one point, he is wholly unable to assimilate, to co-ordinate and to interpret the data obtained."

Having found a satisfactory directing head and a good team working medical staff, the next important item in group organization is the choice of the understaff and lay workers, as bookkeepers, secretaries and technicians.

Success in this respect requires careful thought in numbers, personalities and salaries that will not produce too high an overhead. Each one should be trained not only in their own line of work, but as an understudy of some one else, so that when one is ill or drops out, the work will still go on efficiently. Their work must be so arranged that all are busy during the day, and yet so that none are overworked. All assistants must be kept inspired and happy in their work.

The tripod on which any organization rests is management, policy and finance.

A group should have a managing board to fix policies; to check and stabilize the manager; to guarantee to the public the "morale" of the organization; to referee disagreements about finance or other difficulties between members of the staff.

Many groups fail because they have no defined policy. A policy ill defined or based on wrong ideals is as bad as none. The policy should be decided before organization is completed and before any money is spent on buildings or equipment.

Some of the common questions to be settled in determining the policy of a group are:

(a) To have a directing head or not. If so, what are his powers?

(b) To have a directing board or not. If so, what will be its powers?

(c) Will this board be composed of outside laymen or medical men within the group, or both?

(d) What types of practice are to be included?

(e) Is the group work to be limited to diagnosis, or include diagnosis and treatment?

(f) What attitude to be adopted toward venereal, neurotic, chronic and other special types of patients?

(g) To grow indefinitely or to an ideal size?

(h) To work for charity or to make the staff wealthy?

(i) What ideals and objects are to be striven for?

(j) What attitude toward other members of the medical profession?

(k) To be ethical, ultra-ethical or non-ethical?

(l) What relation toward the public, how to get and retain their patronage?

(m) What type of propaganda, education and advertising, if any?

(n) Promotion and direction of members of the staff; how made and by whom?

(o) Separation of members of staff for improper conduct, how arranged?

(p) What hospital connections to be established?

(q) To seek religious affiliations or not?

(r) What percentage of net income for charity, if any? How shall it be spent?

A crucial part of the policy is the settlement of the questions of finance.

How shall fees be arranged? How divided? How collected? What recompense for a member discharged? What recompense for a member retired for illness, long service or old age? Where will the money come from to cover loss during the first year or so or during hard times?

Many groups are started by one or two enthusiasts who gamble on the cost of building or equipment and trust to Providence that a policy bringing success will arrange itself by trial and experience. But, unfortunately, during one of these trials the corporate body dies before it gets the experience.

In group work friendship must be regarded as a bridge of straw. Only one tie can be relied on—cold cash. If this is unsatisfactory, all else will go to smash.

A fundamental principle in business, one which is difficult for doctors to grasp, must be remembered. The business and the individual are two separate and distinct entities even in private practice. The business employs the physician or surgeon and pays him a salary as manager of himself. He may also be bookkeeper and stenographer and what not. In group work the organization employs someone else to handle some details, while the doctor specializes on others.

Advertising is another important part of policy. Here I am getting on dangerous ground. But whether we like to face the fact or not, this rule is true—that the success or failure of a group depends on the superiority of its advertising. Please note the full significance of the word "superiority," not quantity but quality, which always must be of an ethical character.

A group advertises ethically:

(a) By the high qualifications of its staff, their social position and activities, and likewise of their families.

(b) By the high standing and reputation of the managing directors.

(c) By the nature of the offices, their appointments, furniture, equipment, and the type of clerical assistants.

(d) By the courtesy of all persons to patients, their friends, and particularly to other physicians.

(e) By the efficiency and honesty employed in diagnosis, prognosis and other professional services, as well as by the percentage of cures and the psychological satisfaction given the public.

(f) By the staff's relation, activities and cooperation with their fellow physicians and with charitable institutions.

(g) By research work.

(h) By medical papers read and published.

If actuated by the right spirit the staff will keep itself so busy with ethical propaganda that the members will have little time to be unethical.

CONCLUSION

We may safely conclude that a group of medical men with a variety of training, actuated by right ideals and willing to work and co-operate; managed by a directing head properly trained; working under a sane business and professional policy; with finances arranged to give satisfaction to the workers and sufficient backing to carry them through storms; proper contact with the public in such a manner as to insure confidence; followed by actual results in diagnosis and treatment such as the people demand, a group will succeed. But like a ship at sea, one leak will be sufficient to sink it.

THE USE OF BASIC DIETS IN THE TREATMENT OF NEPHRITIS *

By W. D. SANSUM, M. D., Santa Barbara.
From the Potter Metabolic Clinic of the Santa Barbara Cottage Hospital, Santa Barbara, Calif.

SUMMARY

By the employment of what we are pleased to call a "basic diet," the urinary acidity may be easily reduced to a pH of 7.00 or better.

On such diets patients with chronic interstitial nephritis appear to improve, as evidenced by a decrease in blood pressure, albumin and casts in the urine and other symptoms of nephritis and arterial hypertension.

Before discussing the dietary management of nephritis, it will be well to review briefly the various forms of nephritis. Strange as it may seem, authorities have not agreed on a definition for nephritis. Even Osler, with all his clinical experience, avoids the issue by giving no definition. Henry A. Christian defines nephritis as a diffuse, progressive, degenerative, or proliferative lesion, involving renal parenchyma or interstitial tissue or both.

For practical purposes, however, the presence of albumin in the urine of kidney origin is the most reliable sign of nephritis. The phrase "of kidney origin" is inserted because too frequently a hasty, incorrect diagnosis of nephritis is made whenever albumin is found in the urine, regardless of its source. Urine from a female patient may contain sufficient normal, vaginal secretion or desquamated epithelium to give a distinct test for albumin. Clean or even catheterized specimens of urine should be examined before judgment is finally passed. Even catheterized specimens of urine, in cases of cystitis, may contain sufficient pus to give

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a test for albumin when no nephritis is present. A careful, serious attempt should, therefore, be made to be sure that albumin is present, and that in all probability the albumin is of kidney origin. The diagnosis of so serious a disease as nephritis in a patient should not be made hastily, but only after all the evidence has been examined and carefully weighed.

Granted a urine containing albumin, the problem which presents itself first is the type of nephritis present. In the final analysis, there appear to be four chief types of nephritis. Without sub-classifying further, and without discussing the mixed types—for a single person may have all four types at once—let me present a classification briefly, with a clear picture of each uncomplicated type:

1. Simple albuminurias, transient in nature, with no gross lesions in the kidneys.
2. Parenchymatous nephritis, involving primarily the parenchyma, i. e., the glomeruli, the convoluted tubules, the loops of Henle and the collecting tubules.
   (a) Acute which becomes
   (b) Chronic if the etiology factors continue for a long enough period of time.

(This is the wet type of nephritis first described by Bright.)

3. Chronic interstitial nephritis, in which the blood vessels of the kidneys are primarily involved, together with varying degrees of blood vessel involvement all over the body.

(This is the dry type of nephritis first described by Bright.)

4. The surgical kidney, i. e., tuberculosis, pyelitis, abscesses, tumors, and stones.

Except for the addition of the albuminureas, this is the classification advocated by William J. Mayo.

This classification differs only in minor details from that advocated by Henry A. Christian, for he divides chronic nephritis into the wet forms without increased blood pressure, the dry forms with increased blood pressure, and the mixed forms.

He discusses essential hypertension in a separate section because of the minimal lesions sometimes found early in the kidney; but states that this condition progresses into chronic, interstitial nephritis.

(1) *Simple albuminuria,* transient in nature, and with no permanent, gross lesions in the kidney. Osler's detailed discussion of this condition is so well known that a repetition is unwarranted. Aside from the albumin in the urine, there are usually no symptoms referable to a nephritis. The patient is promptly cured when the systemic infection runs its natural course or other causes subside.

(2) *Acute parenchymatous nephritis.* This, according to Osler, is an acute, diffuse nephritis, due to the action of cold or of toxic agents on the kidneys. Infections of the tonsils, teeth and sinuses, scarlet fever, acute syphilis, septicemia, and chronic suppuration cause by far the greatest number of cases of this type of nephritis. The toxemias of pregnancy probably rank second. Extensive skin diseases, extensive burns, carbolic acid, turpentine, and mercury are occasionally found as etiological factors.

The kidney, in the beginning, is a large, red kidney. A generalized edema is usually present; there is a large amount of albumin in the urine with many casts, and very frequently red blood cells. The blood pressure is practically normal, except in the toxemias of pregnancy. The blood chemistry is normal, unless a temporary anuria is present. The attack may entirely subside if the infection is cured or the toxic substance removed. If the etiological factor remains, this type of nephritis passes from the acute parenchymatous type into the chronic parenchymatous type. Due to fatty changes from malnutrition, the kidney becomes a large, white kidney, which may become progressively smaller as the parenchymatous tissue degenerates.

Chronic tonsillitis and sinusitis, which are very apt to be overlooked, are the most common causes of this type of nephritis. Whenever a patient is seen who has had either a continuous or intermittent albuminuria, with a normal blood pressure, this is usually the type of nephritis present. So important is the blood pressure in a differential diagnosis of the various types of nephritis that this is frequently the first condition that should be inquired into. During the past year, we had two very typical cases, both in young women, who gave a history of having had albumin in the urine for a long time, and in whom a generalized edema was present on admission, and who gave a history of having had intermittent attacks of generalized edema. In both of these cases, atypical, chronic, generalized sinusitis was present. In one case, the drainage of the ethmoidal cells was obstructed by a large polyp, following the removal of which the patient's edema entirely disappeared, and the albumin decreased to a faint trace. This type of nephritis is curable to the degree to which the existing toxic source—which is usually an infection—can be removed. Both the acute and chronic forms are looked upon by Ebright as a toxemia which affects the remainder of the body, as well as the kidneys, which aids us in understanding the generalized edema.

(3) *Chronic interstitial nephritis.* The cause of this type of nephritis is unknown. It certainly does not follow the chronic parenchymatous type just described. The kidney becomes progressively smaller, with the blood vessels rather than the secreting tissue primarily involved. In this type of nephritis, the attention must be centered on the lesions in the kidney. It is a generalized disease, involving, primarily, the small blood vessels of the entire body. The symptoms depend largely upon the degree of involvement of these vessels in the various parts of the body. There is no edema. The albumin in the urine is always small in amount, and frequently is not found unless careful search is made. Hyalin casts are usually seen, but

no red blood cells. The blood chemistry becomes progressively higher as the kidneys become more involved. The blood pressure is always high. This is the most important differential point. The presence of high blood pressure, except in the toxemias of pregnancy already mentioned, regardless of how little albumin is found in the urine, and even if none is found, is sufficient evidence upon which to make a differential diagnosis of chronic interstitial nephritis. This statement is purposely dogmatic, but authors like Henry A. Christian and others, who describe cases of essential hypertension, frankly admit that eventually such kidneys will show clinical signs of true nephritis. Very frequently the patient leads an active, strenuous life with no untoward symptoms until near the end. As the small arterioles and capillaries all over the body become less elastic, it takes more force to drive the blood through them. The heart, therefore, enlarges, thus increasing the blood pressure, and eventually a stage is reached where either a diseased blood vessel breaks in the brain, resulting in apoplexy with sudden death, or paralysis; or the heart, with its chronic myocarditis, fails because it can no longer stand the increased load of high blood pressure in addition to its usual load. Sometimes the patient complains of impaired vision. An examination of the eyegrounds shows the sclerotic condition of the blood vessels. This condition is not due, however, to the kidney condition. The eye, heart and kidney conditions are a part of the general picture of arterial disease.

This is the type of nephritis which is very difficult to include in a comprehensive definition of nephritis, and eventually this disease may be classified as a distinct, arterial disease. As stated before, the etiology of this disease is unknown, and, therefore, since it cannot be attacked at its source, the disease to date is incurable.

(4) *Surgical nephritis.* There are many forms of this disease, each form depending upon the causative factor, such as tuberculosis, pyelitis, the various forms of abscesses of the kidney, benign and malignant tumors and kidney stones. In each case, the pathology and symptoms are different. The treatment is surgical. The prognosis depends upon what surgery can do for these cases. This is about the only form of nephritis which is painful. The pain in the back (of the well-known patent advertisements) is usually not of kidney origin, but very frequently a lumbago of toxic or infectious origin.

The following case report illustrates how a patient may have all forms of nephritis at once:

CASE REPORT

A woman, sixty-five years of age, who had enjoyed excellent health all her life, and who, except during childbirth, had never needed a physician, was taken acutely ill, following her fall house-cleaning. She was short of breath. The eyelids were swollen. The lips were cyanotic. The liver was tender. The legs were badly swollen. The heart was markedly enlarged. The blood pressure was 200 systolic and 120 diastolic. The urine contained large amounts of sugar, albumin, and pus. The high blood pressure indicated an advanced, arterial disease, associated with atypical, chronic interstitial nephritis.

The burden of the fall house-cleaning, added to the high blood pressure load on the diseased heart, had caused it to fail. With the first shortness of breath, there was probably a little increase in albuminuria of the No. 1 type, but as the heart failed, first an acute, then a chronic, parenchymatous nephritis developed. This accounted for the edema and the large amount of albumin, which is not seen in the pure type of chronic interstitial nephritis.

The pyuria was due to a marked cystitis and ascending pyelonephritis, probably aggravated by the diabetic condition. In addition, this patient was practically blind from the so-called albuminuric retinitis, and eventually died from a stroke of apoplexy.

This discussion has been necessarily long, but briefly let us sum up the more essential points.

Granted a patient who has had albumin in the urine for some time: If the blood pressure is high, regardless of what other conditions may be present, and even if the laboratory has failed to find albumin in the urine, a diagnosis of chronic interstitial nephritis should be made. The treatment is difficult and the prognosis is bad.

If the blood pressure is low, and the albumin has been present for some time, it is either the chronic parenchymatous or the surgical type. If there is no pus in the urine and the patient has had no pain referable to the kidneys, one can rule out most of the surgical types, leaving the chronic parenchymatous type as the most probable diagnosis.

Dietary Treatment.—In the treatment of all forms of nephritis, the first essential is obviously the removal of the cause wherever possible, and in most of the cases of types 1, 2, and 4 this can be done. In type 3, since as yet the cause is unknown, this cannot be done. In all cases, it is advisable to place the patient on the most soothing kind of diet possible. It is fairly well agreed that anything which has a tendency to keep the patient toward the acid, harsh side of life will certainly have a tendency to make him worse, whereas measures which will keep the patient on the normal, alkaline, soothing side of life will have a tendency to improve the condition of the patient, both in this and in many other types of disease. The acid-base balance of the body, its variation and regulation, has been discussed by Henderson and Van Slyke.

In terms of hydrogen ion concentration the pH of the body is 7.35, with normal variations probably in the second decimal place. The body reaction is, therefore, always slightly alkaline. Van Slyke states that, "Under extreme, abnormal conditions the pH may fall as low as 6.95, but before this point is reached it appears that coma occurs, and, from the fact that lower pH values have not been observed, it is doubtful that further decrease is compatible with life." The kidneys assist in maintaining a normal body pH by changing such substances as the alkaline sodium phosphate presented to them by the blood to the acid sodium phosphate which they excrete. The hydrogen ion concentration of the urine is one of the means

whereby the effort of the body to maintain a proper pH can be measured and indirectly indicates the dietary mode of life. A pH of 4.35, which is frequently seen in nephritic urine, indicates an acidity 1000 times as great as that of the normal body. The hydrogen ion concentration of such urine can easily be reduced to a pH or 7 or better.

The patient is given what we are pleased to call a basic diet. This is selected from the foods which are either neutral in nature, or which in the course of their metabolism tend toward the alkaline side of life. The following tables and diets have been prepared with these objects in view. They appear to explain concretely the fundamental principles which underlie the various forms of nephritic diet which have withstood the test of time.

The Dietary Control of the Acidity of the Body—There are a number of diseases which are improved when the general acidity of the body is reduced. This is especially true in the treatment of nephritis (kidney disease), high blood pressure, migraine, rheumatism, etc. This is easily accomplished by selecting the foods which are basic (alkaline) in nature. Such lists of foods have been prepared by Sherman and Gettler from ash analyses and tested in man by Blatherwick. The following tables have been prepared from their work and are now being used in the selection of basic diets:

Neutral Foods—These may be used in reasonable amounts desired by the patient unless otherwise stated.

Butter
Corn starch
Cream
Sugar
Lard
Tapioca

Acid-producing Foods—Many of these foods should not be used. A few of the less acid ones, such as the cereals and breads, may be used in the amounts specified for each case. The total excess of acidity over base is expressed in terms of cc. of a normal solution.

	Per 100 grams
Bread	2.7
Bread, whole wheat	3.0
Corn	5.95
Crackers	7.81
Cranberries	....
Eggs	11.10
Egg white	5.24
Egg yolk	26.69
Fish, haddock	16.07
Fish, pike	11.81
Meat, beef, lean	13.91
Meat, chicken	17.01
Meat, frog	10.36
Meat, pork, lean	11.87
Meat, rabbit	14.80
Meat, veal	13.52
Oysters	30.00
Oat meal	12.93
Peanuts	3.9
*Prunes	....
Rice	8.1

* The ash of these articles is alkaline in nature, but because of the precursors of hipuric acid contained by them, they increase the acidity of the body.

Base or Alkali Producing Foods—In general, all vegetables, nuts, and fruits with the exception of prunes, plums, and cranberries are basic in nature. A partial list of such foods is given below. These may be used in reasonable amounts desired by the patient. The total excess of base over acid is expressed as before.

	Per 100 grams
Almonds	12.38
*Apples	3.76
Asparagus	.81
*Bananas	5.56
Beans, dried	23.87
Beans, lima, dried	41.65
Beets	10.86
Cabbage	4.34
Carrots	10.82
Cauliflower	5.33
Celery	7.78
Chestnuts	7.42
Currants, dried	5.97
Lemons	5.45
Lettuce	7.37
Milk, cows	2.37
*Muskmelon	7.47
*Oranges	5.61
Peaches	5.04
Pears, dried	7.07
*Potatoes	7.19
Radishes	2.87
Raisins	23.63
Turnips	2.68

* These foods have been found, experimentally, by Blatherwick to be the most efficient in reducing the acidity of the body.

BASIC (ALKALINE) DIET
Example as served

Breakfast

Baked Apple With Cream
Bacon
One Slice Toast Butter
Marmalade
Orange Juice Coffee

Dinner

Cream Soup
Baked Stuffed Potatoes Beets in Cream
Combination Salad
One Slice Bread Butter Olives
Pineapple Bavarian Cream

Supper

Escalloped Potatoes Buttered Peas and Carrots
Fruit Salad
One Slice Bread Butter
Nut Ice Cream Cocoa

Mid-meal Diets

10 A. M.	3 P. M.	9 P. M.
Milk	Fruit Juice	Hot Milk

(Note—Cornstarch is used as a thickener. Lemon juice is substituted for vinegar in salad dressing.)

Routine hydrogen ion concentrations are made on twenty-four-hour specimens of urine. A pH of 7 or better is considered satisfactory. The simple, colorimetric method described by Clark is employed.

Whenever the blood chemistry shows a retention of nitrogenous end products the protein is limited to the minimal needs of the body, about two-thirds of a gram per kg. Whenever the blood chemistry or urine shows a retention of sodium chloride the salt intake is limited.

The most satisfactory results are seen in the ambulatory cases. Many such patients are overweight. They have a cathartic colitis either from pernicious habits or because purging has been used therapeutically in the treatment of the high blood pressure. They are frequently anemic. On a diet containing an abundance of fruits and vegetables, they lose weight with no discomfort. They have from one to three soft, formed stools per day without the use of cathartics. The gastric and intestinal distresses soon disappear. The haemoglobin improves even though no medicinal iron is given. There is less albumin and there are fewer

casts in the urine. The blood pressure often falls except in those severe, terminal stages of chronic interstitial nephritis with all the typical complications.

We adopted this simple plan about eighteen months ago. A brief summary of the history of one of the first cases treated will give an idea of the results obtained.

CASE REPORT

Mrs. S. First seen December 12, 1920; age 64; weight 172 pounds. She complained of shortness of breath, dizzy spells, marked gastric and abdominal distress and a general run-down feeling. She had been taking salts each morning on the advice of her physician. The blood pressure was 210/110. Traces of albumin and hyaline casts were found in the urine. The patient was given a basic diet with the fats and sugars limited, because of her overweight. The H ion concentration of the urine was tested from time to time and found to be close to a pH of 7.0. She gradually lost weight, with no discomfort. The abdominal distress disappeared. The bowels moved normally. Some of the specimens of urine contained no albumin or casts, and the blood pressure fell as follows:

Dec. 12, 1920—blood pressure 210/110	weight 172	lbs.
Dec. 29, 1920—blood pressure 200/110	weight 171	lbs.
Jan. 12, 1921—blood pressure 195/110	weight 168	lbs.
Jun. 1, 1921—blood pressure 170/110	weight 148.25	lbs.
Nov. 1, 1921—blood pressure 172/115	weight 147.	lbs.

Patient stated that her bowels were moving normally, the gastric distress had disappeared, and that she was feeling better than she had felt for a long time.

Feb. 23, 1921—blood pressure 170/95	weight 160.5 lbs.
Apr. 20, 1921—blood pressure 160/110	weight 148.75 lbs.
Jun. 1, 1921—blood pressure 170/110	weight 148.25 lbs.
Nov. 1, 1921—blood pressure 172/115	weight 147. lbs.

Patient had returned from a summer in New York and Cape Cod, and had felt exceptionally well during the whole time she had been away.

April 26, 1922—blood pressure 160/105 weight 148 lbs.

Nurses Practicing Medicine in New England—Considerable interest has been aroused concerning the problem presented by nurses who have been treating injuries without having secured attendance by physicians. This matter has been frequently referred to by physicians who have felt that nurses have assumed responsibilities not warranted under our laws, and in some instances doctors have felt that the activities of nurses have in a very definite way invaded the field of medical practice, although the nurses have been sufficiently warned. Since the alleged practice of medicine by nurses has seemed to be on the increase there has been no reason why the authorities should decline to act. The Board of Registration in Medicine has tried to bring about compliance with the law without resorting to drastic measures, but reports of questionable methods have become so common and demands for action have been so insistent that it became necessary to report the facts in two recent cases to the prosecuting authorities. . . .

The whole question is complicated and delicate, but it can be solved by the nurses themselves, even though managers of industrial plants and some physicians try to induce nurses to practice medicine either as a convenience or to save expense.

The general purpose of the laws governing medical practice is to protect the patient from incompetent service, and nurses should observe the requirements because it is a law and also because sooner or later some nurse may attempt to render a service which is beyond her ability.—(Boston Medical and Surgical Journal, April 6, 1922.)

CARDIAC DYSPNOEA OR RATHER CARDIAC SHORTNESS OF BREATH

A QUESTION OF RESERVES

By HARRY SPIRO, M. D., San Francisco

In this discussion an attempt will be made to answer the following questions:

1. Is dyspnoea caused by diseased muscles or valves of the heart, and if so, why does not every patient with organic heart disease complain of it?

2. Is dyspnoea due to an edema of the alveolar tissue of the lung, and if so, is the edema always present? If it is, why does dyspnoea only show when the patient exercises and disappears almost immediately upon rest?

3. Is dyspnoea due to a lack of oxygen in the blood, and if so, why cannot these patients assimilate the oxygen of the air as well as any other person?

4. Is dyspnoea due to an improper exchange of CO_2 between the blood and the alveoli of the lungs, and if so, is this a heart or a lung fault?

5. Is dyspnoea due to an acidosis of the tissues or of the blood, and again what is the relation between the heart and acidosis?

6. Is dyspnoea due to a lack of tone or weakening, or partial paresis of the muscles of respiration like the diaphragm, and intercostals, and if so, why call it cardiac dyspnoea?

Dyspnoea, difficult breathing, or shortness of breath, will bring a patient to the physician more quickly than almost any other symptom, because it is a symptom which interferes so materially with his comfort, with his sense of well-being, and earning power. Difficult breathing is unaccountable to the patient. He may awaken in the morning feeling fine and refreshed, but the least effort makes him sit down, not because he is tired, but because he is short of breath. He may come home in the evening, eat a fairly hearty meal, and afterwards have an extraordinary amount of discomfort and shortness of breath, particularly so if he should attempt any exercise. Such, in brief, is the commencing of a chain of symptoms, which, as Facio says, are gradual, progressive and fatal. Just as this symptom is so important to the patient, so it at once becomes to the physician, because he knows that such symptoms are not imaginative. The physician recognizes dyspnoea as a distress signal, a clear call for help from the vital centers of our bodies. While it is true that shortness of breath may have underlying causes other than the heart, it is advisable to prove the heart innocent, particularly if the shortness of breath is in direct relation to moderate effort.

How is dyspnoea brought about? An individual with disease of the valves or muscles of the heart may go through life without knowing there is anything wrong. He may get sick, and get well again. He may eat, drink, smoke and work without much distress. Occasionally he does things to excess, and on such occasions the excess adds an "accumulating resistance" to the heart's action—accumulating because the additional strain has caused some partially degenerated or weakened heart muscle to give way completely, and on each such occasion a call is made on the reserve power

of the heart's muscle because it is the reserve power that has carried the defective heart to this point. If the heart hypertrophies properly—by each ventricle keeping its balance of power—well and good. If the reserve power becomes partially depleted, the strain may be greater on one or the other ventricle with the result that the hypertrophy is irregular, because one of the ventricles becomes out of proportion in power to the other.

One of the interesting episodes in the annals of medicine was the controversy between Welch and Sahli over the cause of pulmonary edema. As a result of extensive experiments both teachers were proved partially correct. Sahli claimed that edema of the lungs was caused only by some local irritant or poisoning or infection, and that if Welch was correct he was wrong anyway, because, as Sahli said, "Welch's theory did not apply to clinical cases." Welch had claimed that the edema could be caused by a disproportion between the powers of the two ventricles, resulting in a damming back of the blood in the lungs or improper circulation of blood in the lungs, and so edema was produced, and today we know that is a fact. The right ventricle may pump the blood fast enough into the lungs, but the left may not drain it out properly. If the left ventricle shows signs of distress the condition is recognized by simply feeling the radial pulse, but if the right side partially gives way, the symptoms are not so easily judged. Merely a cough and moderate cyanosis may be the only symptoms, or even if the patient is feeling fairly well, a few rales of different qualities at the base of the lungs may suggest a moderate edema of the lungs, but perhaps no severe dyspnoea yet, so we will go further, remembering how a weak heart produces edema of the lungs.

We will now consider lack of oxygen in the blood. One of the facts definitely proved during the war was that a very moderate edema of the lungs interferes materially with the proper absorption of oxygen. As with the reserve power of the heart muscle, so it is with oxygen. The blood retains a reserve supply of oxygen of about three times as much as is needed. Experiments by Lundsgaard, Steadie, and others show that the total oxygen carrying power of arterial blood is about twenty volumes per cent. We use about five and one-half per cent at rest, and perhaps ten to twelve per cent with severe effort. After rest the reserve supply is immediately replenished. If an obstruction occurs in the way of the oxygen's ready absorption, as is the case in edema of the lungs, the reserve oxygen gradually becomes depleted. The patient may go on for some time without a serious disturbance, as there is no actual lack of oxygen even after manifest injury to the lungs, because the tissues will absorb their quota of oxygen even though the supply is limited. Sooner or later, as the reserve nears exhaustion, the respiratory center in the brain takes note of it and sends out a call to the respiratory muscles for more work and faster work. Here again we see one of nature's resources, another of the reserve systems, this time called the pulmonary reserve. Actually this is the greatest amount of air the lungs can inhale after the greatest expiratory effort. Ordinarily, we utilize about five liters of air at ordinary respiration at rest per minute. This amount can be increased ten to twelve times without the person being unduly conscious of it. An increase to sixty or seventy liters is common, but there is always a return to the former level. However, in a patient with the above symptoms of insipient incompetence, resulting in a moderate edema of the lungs, the so-called threshhold is raised from five to twenty liters, and so is that much nearer the upper limits of the pulmonary reserve, and the reserve instead of being fifty or sixty liters per minute is now thirty or forty liters per minute, and so an effort that would pass unnoticed in a normal person would to one in this condition become noticed because of the increased respiratory effort needed.

The question of the actual method, not the underlying cause, of this depreciation of the pulmonary reserve or vital capacity is still under active investigation. Rooney of the Stanford cardiac clinic is now doing some work in this line, so I prefer not to discuss it, except to say that probably the air spaces may be encroached upon by the enlarged heart itself acting by compression of lung tissues and by the increased amount of blood in the lungs. The dilated veins may interfere with proper expansion of some air vesicles and so cause overexpansion of others. This, if true, may interfere with the proper draining of the residual air, and even though the respiratory rate is increased and the total air inhaled and exhaled is greater, still the oxygen is not properly absorbed. Now the respiratory center is calling on the respiratory muscles for heavier work, as a proper level of oxygen must be maintained. The respiratory muscles, while tired and probably weakened, still respond. Exhalation ceases to be a nearly passive effort and now is a severe effort, but a time arrives when the respiratory muscles produce more of the products of fatigue than the weakened heart muscles and lack of oxygen can eliminate or neutralize. This product of fatigue also is a stimulant to the already overexcited respiratory center, and the respiration on the least effort over the ordinary becomes quicker and more shallow—another link in nature's chain of defense has become weakened.

We are now in front of one of the last lines of defense which in time of development may be one of the first. It is placed last in the discussion because it is one of the last to break permanently. So far, all processes discussed were shown to depend on the question of reserves, each one of the different vital functions were shown to have tremendous reserves or the power to produce reserves, and as the reserves were encroached upon the patient's body was called upon for extra effort. In other words, extra effort takes the place of former reserves; the reserve we now face is the popular alkali reserve, the question of acidosis, the question of carbon dioxide interchange. This is called the internal respiration. Manifestly, it is impossible to condense the volumes that have been written on this subject into one or two pages.

Physiological and biological chemistry is deep water reasonably safe for Priestly, Heldane or Fisher, but not for most physicians. However, as we said, the internal respiration is the interchange between the tissue cells, the blood cells, and the blood plasma of CO_2 and oxygen, and certain acids and bases. CO_2 is an end product and is capable of forming H_2, CO_3. Now, the greater the accumulation of CO_2 in the blood, naturally the more acid the blood would become, if it were not for the great alkali reserve. The blood must not become acid; if it did, death would very quickly result. Nature has provided an almost permanent alkali level, and as a safeguard to this level has provided tremendous reserve alkali and also the power to produce reserve alkali. The symbol of the alkali reserve of the body can be taken as the sodium bicarbonates. If the CO_2 accumulates too fast so that the CO_2 pressure in the blood rises, a reaction takes place between the blood corpuscles and the sodium chloride in the plasma, resulting in an absorption of the chlorine to form H.C.L., which enters the red blood corpuscles, leaving sodium free. The sodium combines with the CO_2 and forms acid sodium carbonate, so that instead of an acid condition, we really have an alkali condition in the blood; but before this interchange has taken place the CO_2 has stimulated the hypersensitive respiratory center, which calls upon the respiratory muscle for renewed efforts, and large amounts of the CO_2 are immediately eliminated. The kidneys also eliminate large amounts of the bicarbonate that is formed, so that the alkali level which was temporarily raised is again equalized, but the reserve is lessened. The chlorine may now leave the red blood corpuscles and again combine with the soda forming Na Cl., and thus setting free enough CO_2 to maintain its proper level. The CO_2 level is as important as the oxygen level, and if the CO_2 is decreased too greatly it may not return to its proper level, thereby causing disaster. Reserve alkalies having been washed out by the kidneys—an ordinary effort that might pass unnoticed—calls for extra stimulation by the respiratory center, and as there is not enough alkali reserve on hand it must manufacture alkali for the occasion, and so we have the dyspnoea of effort—easily produced because of lack of reserve.

The chemists have experimentally proved that a proper oxygen level must be maintained or death result, and death results even though the oxygen is brought up again to its former level. A CO_2 level also must be maintained. Upward tendencies of the CO_2 level are equalized by the respiratory apparatus. If the level descends below a safe point, it cannot be again raised even by giving CO_2, and a Haemolysis takes place and death results.

There also is an alkali level. If this falls too low, nature reproduces alkali. We should not feed alkalies when nature does not want it, even though there is a lack of alkalies. It is the level that is of utmost importance. If the alkali level is without reserve, or reserve power partially depleted, it would be of use to furnish alkalies, provided we could regulate the respiratory apparatus so as not to reproduce the results that brought on the original trouble. The loss of alkali is not the cause—it is the lack of oxygen that started the trouble.

With the above thoughts before us we return for a moment to the question of diagnosis and treatment. Every case of dyspnoea is not due to the heart, and every case of heart disease need not have constant dyspnoea. Effort can produce dyspnoea in a person whose heart is sound, but dyspnoea is one of the first and most reliable symptoms that the heart is diseased, and in a case of mild dyspnoea a diagnosis can, as a rule, be made because the physical examination can be made leisurely and the defect in the heart proved. But how about the sudden alarm at night, and you walk in on a patient sitting or propped up in bed, as a rule pale or slightly cyanotic, and covered with perspiration, breathing rapidly and labored, foam coming from the mouth, a pulse fast and sometimes irregular? This may be a first attack, and if that is the history obtained from the family, it most likely is a heart attack and should be treated as such, particularly if the attack is attributed to some excess of food or work. Compare this to ordinary asthma bronchial in type. This is generally seasonal, and while there must be a first attack, it is usually long before a physician is called. The patient usually does a great deal of the talking. He is very sick, but does not impress the physician that he is desperately ill. Between his gasps and his wheezes he tells of repeated attacks of bronchitis on exposure to weather as the cause, and after being relieved will still cough up large amounts of purulent sputum. The expiratory effort in bronchial asthma is prominent. Both inspiration and expiration are difficult in cardiac asthma and the rate faster. If the attack stops suddenly, as it may, the patient may sleep and awaken apparently cured, or he may have a severe bronchitis as a result of the exposure during the attack. This is dangerous because it is easy to neglect the heart and think that after all the patient did have a real bronchial asthma. The next attack, if treated as ordinary asthma, may result in sudden death.

The treatment of cardiac dyspnoea is first rest, and more rest. Oxygen used vigorously is valuable. Haldane and Priestly have proved that recoveries from lung edema by the use of oxygen occur where proper methods of administration are employed. Digitol, digitaline, tincture of digitalis are indicated and should be given to the physiological limit. It is advisable to be careful of adrenalin. Atropin blocks the vagus, and thus increases the difficulties in lowering the heart rate. Strychnine, camphorated oil, whisky and caffine are helpful and do not interfere with digitalis. Morphine and oxygen given together are helpful. Without oxygen, morphine is moderately dangerous, because it depresses the respiratory center which must be kept up to its work.

Some patients may die quietly and peacefully

after administration of alkalies while others die in convulsions, with or without alkalies. This method of treatment, therefore, is of questionable value. McLeod advises giving alkalies and testing the urine to determine if acidosis is present. Whitney warns against this procedure and with good judgment. He advises giving a diuretic or a physic at the same time. Too much alkali should not be given, particularly if the kidneys are defective, because the same conditions caused by surplus of acid can also be caused by too much alkali. Keeping the urine neutral is probably the best procedure. The patient should be kept in a semi-reclining position because reclining may embarrass the right heart. The lungs should be stretched by breathing exercises for a few moments several times a day. Caution is necessary to avoid overexercising, as it is possible to embarrass the right heart and right coronary artery. Epsom salts is one of the best laxatives if the kidneys are functioning properly. For a very large and full-blooded patient, venesection is sometimes a good procedure. Even though it reduces the oxygen carrying power of the blood it may relieve an overstretched vascular system.

A simple, though not absolutely reliable, test for acidosis is to give bicarbonate of soda until the urine becomes alkaline, and then watch the amount of bicarbonate necessary to keep the urine neutral. Less than four grams per day is normal and safe to use if neutral red or sulphophenolthalein is used as an indicator.

212 Stockton Street.

THE SLANDERER

The very name invokes loathing. Though more or less in human form, this degenerate remnant of the silurian age is the most contemptible of creatures. The scandalmonger is disliked, the liar is despised, but the slanderer is loathed. Using falsehoods or facts that are distorted as some would juggle statistics, the slanderer spreads a most subtle poison that blasts lives and reputations. Slander cannot be controlled any more than you can stop a lie, once it has gained credence. Compared with the social diseases, it is the greatest evil of our age. The slanderer is more dangerous and despicable than those misguided enemies of society who use bombs and poison secretly.

Whenever you discover a slanderer posing as an honorable member of our profession, let your conscience be your guide, but be sure you do your full duty.—Malsbary, editorial in the Southern California Practitioner.

Speaking of Babies—According to George Ade (Cosmopolitan, February) the old saying that "the hand that rocks the cradle rules the world" is now changed to "the hand that rocks the cradle should be amputated." There is more of humor and interesting philosophy in the article.

"The human race is, according to a guess by H. G. Wells, 75,000 years old, and only in the last twenty-five years has any one known how to welcome a baby and take care of it. All those who survived during the preceding 74,975 years were just plain lucky.

"The first impression gained by a baby of the nineteenth century must have been that Earth is inhabited by elderly people, all females except one and all wearing spectacles.

"The newly arrived of 1921 probably decides that the world is walled with white, tinctured with anesthetics and peopled by efficient internes and calm nurses."

THE PLACE OF PATHOLOGY IN THE PRACTICE OF MEDICINE*

By WALTER V. BREM, M. D., Los Angeles

If one should confine himself strictly to the subject of this paper, his task would be indeed a gratuitous one, for there is certainly no one in touch with the progress of medicine who does not recognize the practical assistance that the pathological laboratory may give to a clinician. There are, of course, some clinicians who have become discouraged in the use of laboratories by reason of incompetent service and because of the fact that ill-informed or overenthusiastic laboratory workers have advanced too often unwarranted claims that could not be fulfilled.

On the other hand, there are many clinicians who are oversanguine regarding the service that a laboratory may render, and others to whom laboratory work is like a simple test tube experiment, that he who runs may read. The former do not appreciate the limitations of the laboratory, and the latter do not understand the difficulties of the work and the necessity of its being directed by an experienced pathologist.

SCOPE OF PATHOLOGY

Pathology, in its broad sense, is the study of the causes of disease, of the structural changes (macroscopic, microscopic and chemical) underlying disturbed function, and of objective manifestations of altered structure and perverted function. Pathology is not limited, as is so often assumed, to autopsies and the microscopic examination of tissues, but the term covers the underlying conditions and objective manifestations of disease. A fairly good foundation in pathology is, therefore, a fundamental prerequisite for a clear conception of disease, and it is as essential for a clinician to be able to visualize common structural changes and to think in terms of pathology, as it is for the pathologist to have had sufficient clinical experience to hold in his view the welfare of patients.

SELECTION OF A PATHOLOGIST

Having acquired a good fundamental knowledge of pathology, so that he knows what examinations are indicated in given conditions, the busy clinician is confronted with the problem of how to secure the pathological service needed in his practice. No longer can his own office encompass the vast field, no longer can he himself find time to master the technique and perform the complicated tests indicated, and no longer can he train his own technician and supervise the work except in a very limited way. Out of this need the modern clinical laboratory has developed, with its departments of tissue pathology, bacteriology, serology, biochemistry and clinical microscopy. The laboratory is no longer limited to tests of urine for albumin, examinations of sputum for tubercle bacilli, and blood counts (relatively simple tests in the department of clinical microscopy), but its work deals with the essential

* Address in the General Session of the Annual Meeting of the Medical Society of the State of California, Yosemite Valley, May 15-18, 1922.

nature of disease and its ramifications extend into every field of medicine.

It is obvious that one who specializes in "the underlying conditions and objective manifestations" of disease, of structural and functional deviations from normal, must have as a foundation a careful training in the normal phenomena of living tissue —that is, in anatomy, histology, physiology, physics, and chemistry. Then one is prepared for the study of the abnormal phenomena, tissue pathology, bacteriology, serology, clinical microscopy, and pathological chemistry; and in order to correlate this knowledge with the need of clinical medicine, the specialist in pathology should have a broad clinical perspective, an appreciation of the problems of the clinician, and last but not least, an understanding attitude toward the patient.

There is probably no other field of medical practice more exacting in its demands. In the breadth of its scope and in its importance it is second to none, and there is every reason why its dignity and integrity should be upheld by preserving for it the highest ethical standards. On the contrary, we have seen the clinical laboratory degraded and discredited, not only by the invasion of laymen and unqualified would-be pathologists, but by the support that many of the medical profession have extended to those who have attempted to exploit a noble specialty by campaigns of boastful advertising, solicitation, rate-cutting, and insidious rebating.

That members of the profession have aided and abetted the pseudo-pathologists referred to is due, I believe, to a misunderstanding of the position of pathology and of the qualifications desirable in a pathologist, and, also, to lack of realization that the insidious appeal of these persons is an attack upon the ethical standards and traditions of the medical profession and is degrading to one of the fundamental specialties of medical practice.

The problem of the clinician in securing adequate pathological service is, therefore, the old problem of selecting the qualified man, and one imbued with the ideals of the medical profession. This is comparatively easy to do. There is a reasonable excuse for members of the laity who patronize poorly qualified doctors and even charlatans and quacks, but the records of physicians are wide open to other physicians and they have the knowledge necessary for justly appraising the value of the records.

It has been said over and over again that an erroneous laboratory report is worse than none at all. Many illustrations of the truth of this statement have come to our attention, and it seems apropos to review a few concrete examples.

Tissues obtained by curettage from the uterus of two young women, one 23 and the other 28 years of age, were sent to recent graduates who claimed to be qualified in tissue pathology, that most difficult branch of all pathology. They returned a diagnosis in both instances of carcinoma of the uterus. Hysterectomy was being considered when consultation was sought by the clinicians. The sections for examination were found to be so poorly prepared that it was disgraceful to attempt to use them in making such important diagnoses; but, as far as could be determined from the architecture, there was no evidence of a malignant condition. But for the consultation, these young women might have been subjected to a major operation which would have deprived them of the possibility of having children and altered the course of their lives, and they would have been forced to labor for years under the fearful apprehension of malignant recurrences.

A third similar diagnosis in another case was made by a lay-conducted laboratory, and again the section was atrocious and there could be found in it only two or three glands, and these showed no evidence of malignancy.

Again, a laboratory conducted by laymen reported the blood picture of a patient as that of pernicious anemia, the color index being about 1.4. The prognosis was hopeless and the patient was given expectant treatment for six weeks, when a second examination of the blood with standardized instruments, made by another laboratory, showed the picture of secondary anemia with a color index of 0.7.

Notorious discrepancies in Wassermann reactions have existed so that this truly wonderful test has been at times sadly discredited. The discrepancies have been due, in our opinion, to carelessness in the titration of reagents and the use of "short-cut" systems by men not thoroughly conversant with the principles of the test. This is not a test to be experimented with and modified by technicians, but it requires always the careful consideration and supervision of a student of immunology. By only the most unceasing watchfulness and care can non-specific reactions be avoided, reactions which would fasten upon innocent persons the stigma of syphilis, cause them to suffer the mental anguish of the spirochetæ infected, and subject them to a drastic, expensive and unnecessary treatment. A good number of such cases have come under our observation. The visualization of such an eventuality by those possessing a "clinical conscience" is, I believe, the only thing that will keep strictly up to standard the complicated titrations and other technical procedures of the Wassermann test.

The opportunities for errors in laboratory work are unlimited, and one must be on guard continually to avoid them; he must realize that man, including himself, is exceedingly fallible, and he must be not only willing but eager to repeat and recheck tests again and again when any doubt exists. He must be, indeed, his own most severe critic.

LIMITATIONS AND USEFULNESS OF PATHOLOGY IN MEDICAL PRACTICE

One of the difficulties with which the clinical laboratory has met is that frequently too much is expected of it—that is, that the limitations of various examinations are not fully understood. There are but few laboratory tests which are pathognomonic, and laboratory results should be considered only as evidence in a case, evidence to be weighed in the balance with all the other evidence which only the attending physician pos-

sesses. Such results should be classified and weighed, therefore, with certain symptoms and physical signs which may or may not be the deciding factors in the diagnosis, prognosis or indication for treatment.

It seems scarcely necessary to review in detail the many avenues through which pathology can be useful to the clinician. It does, however, seem advisable to discuss certain services that may be rendered.

In the domain of tissue pathology, necropsies and surgical pathology should be emphasized. There is no stimulus so powerful and no teaching so instructive as the post-mortem examination. Feared by the careless and cock-sure, and sought for by the earnest and humble student, it stimulates thoroughness, enthusiasm and humility as nothing else can do. Indeed, the scientific spirit of the medical profession and of hospitals can be measured with a fair degree of accuracy by the interest taken in securing post-mortem examinations. No hospital is complete without adequate facilities for these extremely important investigations.

It is a popular fallacy that doctors desire post-mortem examinations because of a morbid curiosity. Of course, nothing could be further from the truth, and it is the public who are benefited most, both through the more careful and enthusiastic clinical work stimulated by the examinations, and through the additional knowledge gained. Therefore, it is a matter of vital interest to the public that permission to hold autopsies be given and adequate facilities provided.

The necessity of pathological examinations, by frozen sections at operations or otherwise, of surgical specimens scarcely needs emphasis. But it should be emphasized again that cellular pathology is the most difficult of all laboratory examinations, and that the cellular pathologist requires longer years of experience and study than any other laboratory worker. Even the best trained pathologist is forced to say not infrequently that he is unable to venture an opinion regarding the malignancy of a specimen. He should know always the anatomical source of the tissue and the essential points in the history of the case, for he needs frequently every aid that he can receive in arriving at an opinion.

In bacteriology, vaccines have had their day of the usual exploitation of new therapeutic methods, and out of the confusion have come a few valuable additions to our armamentarium. Among these are prophylactic typhoid and probably yellow fever vaccination and vaccines for staphylococcic infections. Of course, the tremendous value of the old-established vaccines against smallpox and rabies is undisputed, except by doctrinaires and cultists. Some of the other vaccines occasionally appear to produce beneficial effects, but most of them have been disappointing. Of the anti-bacterial serums, three are pre-eminent—the anti-diphtheritic, the anti-tetanus, and the anti-meningitis. The anti-plague, anti-cholera, anti-anthrax and anti-yellow fever serums are said to be of value. Animal inoculations, blood cultures and other cultural examinations of exudates, such as diphtheritic, are of course, of great importance in certain cases.

In the field of serology, the typhoid agglutination test and the Wassermann test stand out above all others in practical value. The agglutination test should be made with a standardized suspension of typhoid organisms (like the Dreyer antigen) or with a suspension of organisms grown at room temperature, which we have found to have practically the same agglutinability as the Dreyer antigen. The incubator-grown bacilli are much more resistant to typhoid agglutinins.

The value of the Wassermann test has been greatly enhanced by the cholesterinized antigen and the ice-box preliminary treatment. The cholesterinized antigen, however, as first introduced (0.4 per cent cholesterine) caused a considerable number of non-specific fixations, and brought about much criticism of the Wassermann test. Very soon after its introduction, our titrations showed that cholesterine in 0.1 per cent did not give the non-specific fixations and that it gave a far more sensitive test than the old antigens. Its sensitiveness has been greatly increased by the ice-box preliminary treatment instead of the water bath incubation at 37° C. We believe that the test made according to this technique is as sensitive as it can be made without danger of the calmity of non-specific fixation.

The new biochemical tests, for several years, have enjoyed a vogue that we have felt has been out of proportion to their clinical value. Some of the chemical tests are, at times, no doubt helpful, especially the study of blood sugar, urea, creatinine, and the phenolsulphonepthalein test. But none of them have supplanted the old and tried clinical and urinary criteria, upon which the careful clinician still lays the greatest stress. The basal metabolism test may be included here, as it deals with the chemistry of respiration. It seems to be a real contribution to our armamentarium in differentiating the cases on the clinical border line of hyperthyroidism, and in indicating the degree of thyroid intoxication.

Clinical microscopy, to which, with tissue pathology, the laboratory was limited not so very long ago, now occupies a less conspicuous though still important place. Urinalyses, sputum examinations for tubercle bacilli, microscopic examination of feces, and blood counts are as imperative in given cases as they ever were. But many of the blood examinations, even those reported in the literature, are of no value because the instruments used were not standardized. Especially is it important to use reliable hemocytometers and hemoglobinometers. The Levy hemocytometer may now be obtained under the stamp of standardization of the Government Bureau of Standards. Every new hemoglobinometer should be standardized when first obtained, and some of them at intervals afterward. Failure to do this is frequently revealed in the literature in case reports of conditions other than pernicious anemia in which the color indices run sometimes far above 1.

Many of the examinations in a clinical laboratory depend for their value upon vigilance in such small details of technique: The correct and repeated titration of reagents, the preparation and renewal

of stains such as the analine gentian violet of Gram's stain and the eosin-methylene blue blood stains, the method of getting specimens, the condition of specimens, the selection of a test when more than one is described, etc. Valuable additions have been made in recent years to the department of clinical microscopy in the dark field examination for spirochetes and in the blood group tests preparatory to transfusions.

The departments discussed are distinctly features of the clinical laboratory, but there has developed another phase of work that merits discussion. Because of its equipment, personnel, and experience in intravenous work, many clinicians have found the laboratory to be of assistance to them in certain other diagnostic and therapeutic procedures such as lumbar punctures, tuberculin tests, blood transfusions, intravenous glucose injections, and anti-rabic treatments.

RESEARCH IN CLINICAL LABORATORIES

In addition to the above outline of work, we feel that every clinical laboratory should be interested in one or more large subjects of investigation. Research, far better than anything else, will preserve and foster a scientific spirit and will inject life into a laboratory. In trying to follow out this idea, our laboratory has been interested since 1912 in the treatment of syphilis with the arsenicals, especially of neuro-syphilis. This investigation over a period of ten years not only has contributed a large and unusual series of cases carefully controlled by blood and spinal fluid tests, but it has aided us materially in developing these tests to furnish special information that the clinician needs. Another investigation that our laboratory has conducted over a period of ten years is that of blood transfusions controlled by blood grouping as worked out by Moss. At first defibrinated blood was used, then citrated blood, and, since 1916, whole blood by the Lindemann syringe method. Our series of transfusions now numbers about 2000, and has taught us some valuable lessons which will be embodied soon in a report. Many minor investigations besides have been carried on—the agglutination of the typhoid group by the serums of over 100 nurses after vaccination with the triple vaccine, the agglutination and complement fixation curves of normal rabbits after typhoid vaccination, the technique of the Wassermann test with especial reference to cholesterinized antigens, etc. These researches have been of inestimable value, not only in stimulating interest and relieving the routine of laboratory work, but also in inculcating the scientific spirit in the technicians and developing in them an active desire to avoid errors.

ORGANIZATION AND PERSONNEL OF THE PATHOLOGICAL LABORATORY

The staff of a laboratory should be large enough to take care of each piece of work that comes to it at the "peak load" as well as if it were the only work to be done, and this regardless of the overhead cost. Laboratory work takes time and care; it cannot be unduly hurried, and the scientific spirit is brutally injured when one attempts to "get by" with work not well done and well controlled. This ideal requires not only a large staff, but one carefully picked and trained. A laboratory should not accept the training, or take the spirit for granted of any technician without a period of probation and careful supervision, no matter where the training has been conducted or how glowing the recommendations. This policy has saved us from many experiences that would have been fraught with distressing errors. An efficient large clinical laboratory must be built up slowly, its efficiency and spirit must be the result of a healthy growth, and beneath all its work should be a supporting tradition of service. These things cannot spring into being with a mushroom growth over night, but, like the great clinical offices, they must begin with the physician in a small way, and gradually grow into their own. It seems to me that this conception gives the clinical laboratory its rightful place among the great dignified specialties of medicine, and I plead for the fine ethical ideals of the medical profession to be applied to the clinical laboratory, to keep it dignified, to save it from commercialism, and to preserve its scientific spirit. In this way only will the place of pathology be an honorable one, in this way only will scientific and high-minded physicians be stimulated to follow this work, and in this way only will pathology be able to give of its best to the practice of medicine and find its place among its sister specialties.

American Red Cross (Abstract from the Report of the Board of Trustees, American Medical Association, Minutes, House of Delegates)—At our annual meeting in November, 1921, the secretary of the board reported the result of a conference with the vice-chairman of the Central Committee of the American Red Cross, in regard to the present and proposed future activities of that organization in public health work. He also presented a copy of a letter written by him to the vice-chairman of the Central Committee of the American Red Cross, in which the opinion was expressed that the time had arrived when the American Red Cross should cease its public health activities and should restrict its work to the relief of disabled ex-service men in the hospitals and in their homes, in addition to the purposes for which it was originally organized, as designated in its charter. The board approved the action of the secretary and endorsed the opinions expressed by him in the letter referred to. Apparently, the Central Committee of the American Red Cross has not modified its public health program. It is the opinion of the board that the association, through the House of Delegates, should take appropriate action to convince those in authority that the public health activities of the American Red Cross are no longer necessary and if continued are likely to promote community irresponsibility and helplessness in regard to its own welfare.—Journal A. M. A., May 27, 1922.

EDITORIALS

THE FIFTY-FIRST ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

The 1922 meeting of the Medical Society of the State of California, held in Yosemite Valley, May 15 to 18, was a success. This from whatever angle one cares to review it.

Socially, the spirit of good-fellowship, companionship and cordiality was splendid as between members, their families and guests. The hospitality and spirit of co-operation of the officers and staffs of the Government, the hotels and transportation companies, deserved and secured much praise. Many persons visiting the Yosemite Valley for the first time were converted into future friends and patrons of its beauty and hospitality.

In spite of the truly wonderful and varied outdoor attractions that invited one on every side, the attendance at all meetings was gratifying and the program was carried out with but minor changes. The program covered an exceedingly wide range of subjects, including public health, clinical medicine, pathology, research, and medical economics.

Over two hundred papers were read. These manuscripts aggregate over 4000 pages of typewritten matter, or, with the discussions, nearly two million words. Printed in ordinary type this would represent about two volumes the size of Osler's text book on medicine.

The most important feature of these statistics, to our members and to the Editor of the Journal, is that it would take over two years to publish all of these papers in the Journal even if every one of the reading pages in every issue were to be utilized exclusively for the purpose.

It is obvious that the Editorial Staff of the Journal has an arduous task in examining all of these manuscripts, as well as the unpleasant and difficult task of selecting from so many good papers the ones that it is possible to use in the Journal before the next meeting of the Society.

The papers presented, both in the General Sessions and in the fourteen Sections, were unusually good; and consequently, the scientific interest and "atmosphere" was kept upon a high plane throughout the meeting.

The important matters acted upon by the Council and House of Delegates will be considered in the July issue of the Journal.

PATENT MEDICINE FRAUDS INCREASING

The advertising columns of some newspapers are beginning to look like they did before Samuel Hopkins Adams' "Great American Fraud Articles" and before the clean advertising organizations began to be effective.

Taking advantage of the general instability of the social and economic conditions, many of the old frauds that have not been in evidence for many years, as well as many new ones, are taking large space and are making the usual fraudulent claims. The testimonial writer is with us again and many others of the oldtime methods once thought to be destroyed are out again in full force.

The following advertisements illustrate this point:

"Hurry Mother! Even a sick child loves the 'fruity' taste of California 'Fig Syrup.'" Many people have forgotten that "Syrup of Figs" contained 6 per cent of alcohol and that its active principle is not figs but senna, a cheap and well-known drug.

"Pape's Cold Compound" was exposed in nostrums and quackery more than ten years ago, when its analysis showed it to contain: Acetanilid, 1.6 grains (a cheap, powerful and dangerous coal-tar heart depressant); phenolphthalein, 1.8 grains (a well known and cheap laxative); sugar, 8 grains.

Many cheap cocktails of other days that have been exposed and all but forgotten are again advertising. The alcohol content that formerly was printed in exceedingly small type is now carried in a way to be easily read.

THOMAS CLAY EDWARDS

In his presidential address, John H. Graves, among other serious and important messages to the physicians and citizens of California, called particular attention to the duties, responsibilities and importance of the work of the general practitioner.

The same theme ran like a golden thread through the discussions and atmosphere of the Fifty-first Annual Convention of the State Medical Society to such an extent that one distinguished member suggested an editorial on the rediscovery of the family physician.

This happy spirit fittingly prepared the way for the unanimous election of Thomas Clay Edwards as President-elect of the State Society.

Doctor Edwards is from Monterey County, and has been engaged in general practice in the small city of Salinas for nearly forty years.

Health Insurance—Group Medicine (Minutes, House of Delegates, A. M. A., address of Speaker)—Compulsory health insurance never will and never can become an American institution. As our campaign of public education broadens, this fantastic, un-American machination and the fancies of its proponents will fail to arrest legislative attention and consideration or draw unto it public demand and support. There are other forms of medical practice, instigated, conducted and extended by individuals, groups and health and lay agencies that encroach on and mitigate against the interests of the individual doctor. Some of them merit endorsement and support. Others, however, require our emphatic and perhaps drastic denouncement. They are dependent, for success and extension, on the members of our profession. Regretfully we recognize that many physicians, thoughtful only of self, place their services at the command of such agencies. Such practices must not be condoned.—Journal A. M. A., May 27, 1922.

COUNTY SOCIETIES

ALAMEDA COUNTY

Alameda County Medical Association (reported by C. L. McVey, secretary-treasurer)—The general meeting of the Alameda County Medical Association was held on April 17, 1922, at the Public Health Center.

George Rothganger presented a case of infantile paralysis in a boy who has been operated on for correction of the deformity in the lower extremities, resulting from a former infection.

A. A. Alexander read a paper on "Some Common Heart Arrhythmias." Recent development of interest in arrhythmia has led to elaborate instrumental investigation. Basing our efforts upon the material so provided we may diagnose many arrhythmias by simple bedside investigation. Alexander emphasized the importance of recognition of beginnings of diseased state as an aid to restoration; of the anatomy and physiology; of mechanism, etiology and recognition of (1) tachycardia; (2) heart block; (3) auricular flutter; (4) auricular fibrillation.

Mr. P. L. Ansell discussed "The Value of Teleroentgenograms in diseases of the cardio-vascular system. (1) limitation of the fluroscopic method of examination; (2) comparison of the Groedel Bardeen and Friedlander methods of heart measurements and the types of cases in which teleroentgenographic measures are of greatest value as an aid to diagnosis; (3) the value of combining two of the above methods, based on a series of cases in institutional work and private patients.

The Secretary read resolutions of condolence in the case of the death of Joseph Medros. The committee appointed to draw up the resolutions were Maher, U. C. Billingsly and James Hanley.

About twenty-one members of the Merritt Hospital staff made a trip to Fresno on May 2. A banquet was given to the visiting physicians by the staff of the Burnett hospital. The meeting of the Fresno County Medical Association was turned over to the visitors. Hubert Rowell read a paper on "Some Neglected Landmarks in Therapeutics." S. H. Buteau followed with a paper on "The Surgical Abdomen." Siefert read a paper on "X-ray Therapy." M. L. Emerson read a paper on the use of "Novocaine in Spinal Anesthesia."

CONTRA COSTA COUNTY

Cottage Hospital, Richmond, California—This hospital, under the management of Miss Agnes Driscoll, has recently been equipped with an electric sterilizing outfit.

VENTURA COUNTY

Big Sisters Hosital, Ventura—What was formerly known as the Bard Memorial Hospital is now known as the Big Sisters Hospital. It has a board of directors representing the Big Sisters organization, and its staff includes practically all of the members of the Ventura County Medical Society. Miss Mary Ferdinand, an experienced nurse, is superintendent of the hospital.

FRESNO COUNTY

Selma Sanitarium, Selma—This new hospital is nearing completion. The building consists of a half basement and first and second floors, with the usual space for general utility departments and office administration.

KERN COUNTY

Wasco Sanitarium—E. S. Fogg is erecting a small sanitarium near his office in Wasco, Kern County. The sanitarium will consist of five rooms and is connected with Dr. Fogg's office.

LOS ANGELES COUNTY

The Los Angeles Radium and Oncologic Institute Opens Clinic For Those Unable to Pay—With the installation of the new deep X-ray therapy equipment and otherwise increasing the personnel and facilities of the Institute, the directors feel that it is desirable to establish a definite clinic for the study and treatment of appropriate indigent patients. There has been set aside approximately one-fourth of the facilities of the Radium, X-ray and Clinical laboratories to be devoted to this work. The clinic will be limited to ambulatory cases and will be conducted on Wednesday and Saturday mornings, from 9 to 10 o'clock. Members of the medical profession are cordially invited to visit the clinic that they may better familiarize themselves with the development of radiology and the diagnosis and treatment of neoplastic diseases and other appropriate conditions (Bulletin, Los Angeles County Medical Association, February 16, 1922).

Hollywood Community Hospital—This organization now owns its own lot and has $245,000. They are going ahead with their plans to build in proportion to the total amount of money received by the selling of preferred stock with a guaranteed interest of 7 per cent and now earning common stock. Shareholders in both classes of stock have a say in the management of the institution. It is proposed that this hospital make the usual charges for service to those who are able to pay; those who cannot pay full rates shall pay as much as they can afford, even though this may be nothing at all. The balance in volume between full pay, part pay and absolutely free work will be maintained in accordance with the condition of the hospital's finances, it not being essentially a money-making proposition.

Long Beach Municipal Hospital—A movement is under way by the city of Long Beach to convert its present city hall into a municipal emergency hospital when the new city hall, now under construction, is completed.

Hermosa Beach—The Hermosa Beach and Redondo Beach Chambers of Commerce have endorsed the proposition of Carl Anderson, M. D., to open a sanitarium. Local physicians of Hermosa Beach have endorsed Dr. Anderson's plan for a general hospital.

Casa Del Mar Hospital, Venice—This hospital consists of twenty modern bungalows that will take care of three patients each, with a central general utility service arranged somewhat like the bungalow hotels of Southern California. The hospital is located on Venice boulevard, easily accessible to all parts of the Santa Monica bay district.

El Segundo Hospital—Mrs. Gregory has opened a five-bed hospital at El Segundo, California. The staff of the hospital consists of Doctors Harry H. Davis and C. M. Anderson of Hermosa Beach.

Good Samaritan Hospital, Los Angeles—This hospital has recently been accredited by the Council on Medical Education and Hospitals of the A. M. A. This is gratifying news to all medical men in the southern part of the State, and the Board of Trustees, officers and staff of that hospital are to be congratulated upon the splendid improvement they have made in the hospital during the last few years.

Children's Hospital, Los Angeles—The outpatient department of this splendid hospital is growing very rapidly. Last year the combined clinics handled 6,674 patients.

Los Angeles Orthopedic Hospital and School—This new hospital, costing $150,000, was dedicated and opened to the public on April 17, 1922. The hospital and school will be operated by the Los Angeles Orthopedic Foundation. The beautiful

property on which the hospital is located was given by Mr. John Brockman, and Mrs. Anita Baldwin contributed $50,000 of the cost of the building and equipment. Twelve thousand people have contributed small amounts, and more than four hundred of them were present at the opening exercises. Dr. C. L. Lowman is director of the institution.

MERCED COUNTY

New Method of Selecting Physician—The Merced Board of Irrigation has passed a resolution to ask physicians to submit their names for a one-dollar-a-month contract practice among the employes of the district, and to care for sicknesses that may arise in their various camps. The method of selecting is, to put the names of the various physicians (if any should so lower their standing as to apply) in a hat and shake it. Then a name will be drawn from the hat, and the physician whose name is drawn will be declared the official physician of the Merced Board of Irrigation. This is a particularly disgusting reflection upon the medical profession and, as one of our reporters from Merced County states, "It has all the earmarks of shaking dice for cigars."

RIVERSIDE COUNTY

Riverside County Medical Society (reported by T. A. Card, secretary)—The County Medical Society met at the Mission Inn on April 10, 1922, with 35 members and 25 visitors present and 12 members absent. The occasion of the meeting was a complimentary dinner to President Ray Lyman Wilbur of Stanford University, given by the Board of Directors of the Riverside Community Hospital.

President Wilbur's subject at the meeting was "The Community Function of the Hospital." Dr. Wilbur stated that "the hospital is primarily the training center for health in a community. It is a real community enterprise, even though conducted on an independent basis by private individuals. The application of aseptic surgery, the contributions of the laboratory sciences to medical practice, the X-ray, etc., have all demanded a center in which they may operate to the economical service advantage of all the people. Such a hospital is also the radiating point for medical information. It is here that the physician, the student, the nurse, the patient and the public all come together with a common purpose. Community welfare depends upon the physician more than upon the politician."

Dr. E. N. Wood, superintendent of the County Hospital, has been granted leave of absence for one year, and A. W. Jones will occupy the office of superintendent during this period.

Hemet Hospital—J. A. Ramsay, M. D., has assumed control of Hillcrest Sanitarium at Hemet, relieving Dr. Gregory, who formerly had charge of the institution.

SANTA CLARA COUNTY

Santa Clara County Medical Society (reported by E. P. Cook, secretary)—The Santa Clara County Medical Society, the County Dental Society and the Bar Association of Santa Clara County held a joint meeting on April 19 in the banquet hall of the Commercial Club at San Jose. Samuel G. Tomkins, president of the new San Jose Hospital board of directors, presided. Short talks were given by George B. Little, president of the County Dental Association; Raymond C. Wayland, president of the County Medical Society; Hon. John E. Richards, Judge of the Appellate Court of California, and James B. Bullitt.

[Editor's Note—The Santa Clara County Medical Society is to be congraulated upon its activities and particularly upon initiating this form of meeting between members of three great professions.]

SAN BERNARDINO COUNTY

San Bernardino County Medical Society (reported by E. J. Eytinge, secretary)—The society met at the County Hospital, San Bernardino, with thirty members, twenty dentists and ten guests present, and forty members absent.

George W. Clark and J. S. Reekie were elected to membership. Charles P. Engel transferred from Calexico.

Goodman A. Miller, D. D. S., presented a paper on "Radiographic History of a Case of Osteomyelitis of Entire Mandible."

William B. Bowman of Los Angeles discussed "Fractured Vertebrae," and Ellis Jones of Los Angeles discussed the "Treatment of Club Feet."

This was an interesting combination meeting of the Medical and Dental Societies and scientific problems of common interest were discussed by both organizations.

Health and Medical Work in San Bernardino County—San Bernardino County has adopted the best method possible as a nucleus upon which a program of public health and medical improvement can be based. They have combined the positions of county health officer, county physician and superintendent of the county hospital into one position and have employed upon a strictly full-time basis a physician, Dr. Lenker, to fill these three positions.

They have furthermore placed upon salary an assistant to Dr. Lenker upon full time, Dr. Vickers.

SAN DIEGO COUNTY

San Diego County Medical Society (reported by Robert Pollock)—The physicians of San Diego are considering an opportunity to enjoy their own building with the space devoted entirely to offices of physicians and dentists and tenants acceptable to them. Ground will be broken within a month for a six-story building facing on Fifth, Sixth and B streets, to contain a theater entrance and store rooms on the ground floor, and offices on the floors above. The owners are willing to make of it a physicians' building and name it such, provided 80 per cent of the floor space will be contracted for. The location is an ideal one, situated in the heart of the shopping district. The owners, as we understand, are willing also to provide free of rental a library room and auditorium for the medical and dental societies. It reflects the fact that the members of these professions make good and permanent tenants.

The San Diego Society is sending a good delegation to the Yosemite meeting of the State Society.

The last meeting of the County Medical Society was held in the auditorium at St. Joseph's Hospital on Tuesday, April 25, and discussed as the paper of the evening the treatment of asthma in all its bearings. The essayist was R. A. Kocher.

The newly installed staff of the San Diego County General Hospital consists of the following: Samuel Stallard, University of Virginia; E. O. Rowley, University of New Zealand; Gladys Rowley, University of New Zealand; Gwendolyn Stewart, College of Medical Evangelista, Loma Linda and Los Angeles.

In the passing of Dr. E. M. Fly, the San Diego profession and the county society lost a much valued member; one whose counsels were ever soght and prized in times of public crises when the well-trained and experienced medical man alone could guide and guard the public health. The Bulletin hopes in the near future to present a brief biography of our lamented brother. Meanwhile the Bulletin anticipates the action of the society in properly recording in its own transactions the sense of the loss it has sustained.—R. P. (Bulletin of the San Diego County Medical Society.)

SAN FRANCISCO COUNTY

San Francisco County Medical Society—At the meeting of April 18, E. B. Towne read a paper on the value of cerebral pneumograms in the localization of intracranial lesions. He reviewed Dandy's work, and presented five illustrative case reports.

In three cases of obstructive hydrocephalus from 500 to 1500 cc. of ventricular fluid were replaced by air. Roentgenograms of the infants' heads showed the disease to be due to occlusion of (1) the foramina of Magendie and Luschka, (2) the aqueduct of Sylvius, and (3) the right foramen of Monro. New foramina were made for the first two patients, but, though the operations were well borne, the hydrocephalus was not cured, and both died in a few weeks. The third patient died of shock following extirpation of the choroid plexus. In these three cases the disease was far advanced; Dandy has shown that before the ventricles are greatly dilated the points of obstruction can be attacked with a fair chance of success.

The two brain tumor cases were more important. The first patient had increased intracranial pressure and major epilepsy, without localizing signs. The pneumogram showed that no air passed into the left lateral ventricle. At operation a large gliomatous cyst in the left temporal lobe was evacuated. Six months later the patient was working and considered herself perfectly well. In the second case major epilepsy began in the thirty-second year, without increased intracranial pressure or localizing signs. Roentgenograms disclosed a calcified tumor in the right frontal lobe. Pneumograms were done to try to demonstrate whether the tumor was attached to the meninges at the base or lateral wall; but they gave no help, for no air passed into the right lateral ventricle. At operation a calcified glioma was partially removed. Three months later the patient was having occasional epileptic attacks. Had the tumor not been calcified it could have been diagnosed only by the pneumogram. Such patients are probably not infrequently treated as cases of idiopathic epilepsy.

The conclusions were that cerebral pneumography was devoid of harmful effects in these five cases; that it was valuable in detecting the point of occlusion in obstructive hydrocephalus; and that it was the essential diagnostic method in the localization of tumors lying in silent areas of the brain.

City Board of Health Budget—The City Board of Health budget for the coming fiscal year has been submitted and totals $4,000,000. This budget includes $15,000 for radium, $11,000 for a building to house women discharged from State institutions, $1,500,000 for new buildings at the Relief Home, and $500,000 for a new Board of Health building.

University of California Student Hospital—The present "Infirmary," located on the campus of the University at Berkeley, has been declared inadequate, and plans are under way to construct a new hospital of 100 beds, to be used by faculties and students of the university. Robert T. Legge, M. D., is director of this hospital.

St. Luke's Hospital—St. Luke's Hospital, San Francisco, announces that it is now equipped with a modern deep therapy X-ray apparatus which has ability to produce a voltage of 280,000 volts.

Dr. Alfred C. Reed has resigned as medical director of the Ross Sanitarium.

SOLANO COUNTY

Benicia Arsenal Hospital—Money has been appropriated and plans and specifications are being prepared for the construction of a hospital in Benicia Arsenal.

SAN JOAQUIN COUNTY

San Joaquin County Medical Society (reported by Dewey R. Powell, secretary)—The regular meeting of the San Joaquin County Medical Society was held at the State Hospital Friday evening, April 14. In the absence of the president, Margaret Smythe, second vice-president, presided. Those present were: Margaret Smythe, L. Dozier, Grace McCoskey, F. J. Conzelman, E. L. Blackmun, H. C. Price, H. E. Sanderson, J. W. Barnes, W. Friedberger, E. L. Tretheway, J. E. Nels, E. A. Arthur, A. H. McLeish, N. E. Williamson, C. D. Holliger, J. P. Hull, H. Smythe, D. R. Powell, with W. H. Kellogg and E. C. Dickson of San Francisco as guests.

The first paper was given by E. C. Dickson on the subject of "Botulism." He spoke of the recent interest through the outbreak three years ago in the east which was due to California ripe olives and resulted in widespread newspaper publicity which crippled the olive business for a period of two years. As a matter of fact botulism was well described in 1735 and in 1802 was the subject of public health reports in German cities.

The bacillus botulinus is a spore bearer and an anaerobe and withstands 245 degrees heat for 35 minutes. Furthermore its toxin is not destroyed by gastric juices. The bacteria do not produce toxin in the body but it develops in preserved food before eating. He showed the small proportion of infected cans in 1917, 1918 and 1920 by stating that out of 91,912,000 cans of olives fourteen cans only were known to have been infected. Since 1889 not over 200 jars of all kinds of preserved food have been known to have been infected and in 1917 alone 850,000,000 home-canned containers for home-canned materials were sold. Preventive measures have been established by care on the part of the commercial canner under Government regulations together with the education of the individual housewife through publinc channels. During the discussion Dickson answered many questions and spoke of some of the symptoms. In the first twenty-four hours there is general malaise, double vision, dizziness. In thirty hours ptosis, dilated pupil, paralysis in talking and swallowing, muscle weakness, no pain, no sensory disturbances, death from respiratory failure and the mortality is from 60 per cent to 100 per cent. Clinically the use of antitoxin has been disappointing because not given early enough.

The next speaker was W. H. Kellogg, who spoke on the control of diphtheria. He mentioned the decrease in the mortality rate from 64 per cent to around 8 or 10 per cent with use of antitoxin, but that there are still about 200,000 cases per year with some 20,000 deaths. The main method of spreading the disease is by the healthy carrier or by the case in which the diagnosis has been missed. Most of the deaths are due to the delay in calling help, and Kellogg emphasized the necessity of giving antitoxin early without waiting for a laboratory report in suspicious cases and of giving adequate initial doses, wherever possible, intravenously. In the control of diphtheria the matter of educating the public to be suspicious of sore throats and care for them early was emphasized as well as establishing immunity by toxin antitoxin method. Over 100,000 such cases have been treated in New York City with no bad results. This test is of great importance to children as the older one gets the more immunity is established. Kellogg also mentioned a test he is using. This consists in injecting the blood of a guinea pig which in cases of a susceptible patient gives a very quick reaction in a few hours; quicker results than the Schick test. Numerous questions were answered and the chairman thanked both physicians for their courtesy in appearing before the society.

Second meeting of Medical Society (reported by D. R. Powell, secretary)—The meeting of May 12 of the San Joaquin County Medical Society was held at the State Hospital. Those present were: R. T. McGurk, J. D. Dameron, A. H. McLeish, F. P. Clark, H. Smythe, Minerva Goodman, F. J. Conzelman, H. E. Sanderson, Grace McCoskey, Margaret Smythe, N. E. Williamson, L. Dozier, H. S. Chapman, C. F. English, D. R. Powell, and Kaplan of Stockton, with Richard W. Harvey and Julian M. Wolfsohn of San Francisco as guests.

The following resolution was unanimously adopted:

Whereas, the State hospitals for the insane and the Sonoma State Home for Feeble-minded comprise the medical division of the State's service; and

Whereas, we feel that the care and supervision of these institutions should be under the direction of a medical man; and

Whereas, Dr. John A. Reily, former Medical Superintendent of the Patton State Hospital, has been appointed to the position of Director of State Institutions; and

Whereas, on account of Dr. Reily's long and efficient service in the care and management of the insane, we are confident that the departments of the State's service under his jurisdiction will be conducted in an efficient and economical manner; be it

Resolved, that the San Joaquin County Medical Society at this meeting on May 12 commend Hon. William D. Stephens, Governor of the State of California, for appointing Dr. Reily; and be it further

Resolved, that a copy of this resolution be forwarded to Governor Stephens.

The delegate to the California State Medical Society meeting in Yosemite Valley was instructed to introduce such resolution at the State meeting.

A motion was adopted instructing the secretary to write to the District Attorney and Assistant District Attorney, expressing the approval of the society over the diligent action of the officials in prosecuting individuals who are practicing medicine without a license.

Dr. Richard W. Harvey of San Francisco read a paper on "Combined System Disease." Harvey discussed very thoroughly the etiology, symptoms, differential diagnosis and pathological findings.

Julian M. Wolfsohn spoke on the "Clinical and Pathological Aspects of Lethargic Encephalitis." The author particularly emphasized the fact that lethargic encephalitis was an infection of the central nervous system of unknown origin and that the prognosis must be extremely guarded. Cure is not certain and relapses occur very easily and frequently and the only treatment is rest in bed over a minimum period of two months followed by another period of no work for six or eight months.

SANTA BARBARA COUNTY

Santa Barbara County Medical Society (reported by A. C. Soper, Jr., Secretary)—The County Society held two meetings in April; one on the 10th with fifteen members and one visitor present and thirty-nine members absent; the other on the 24th with twenty-six members and three visitors present and twenty-eight members absent.

Albert Quincy Spaulding of Santa Barbara was elected to membership. Application of Jesse P. Truax of Lompoc was referred to the censors.

The society passed a unanimous resolution recommending that the City Council pass a resolution insuring a sane and safe Fourth of July.

H. O. Koefod read a paper on "Perforating Aneurysm of the Abdominal Aorta."

G. F. Farman, paper, presented by H. J. Profant, was on "The First 100 Cases Examined at the Santa Barbara Boys' Clinic."

The society invited Dr. Geiger of the U. S. Public Health Service to give a public lecture in Santa Barbara on "Botulism."

At the meeting on April 24, R. M. Clarke presented a paper on "Treatment of Constipation." This paper elicited considerable discussion by many members.

H. J. Profant read a paper on "Suppurative Parotitis," which consisted of a critical review of literature.

Santa Maria Valley Hospital Association—This group association has been authorized to sell stock and to proceed with the construction of the Santa Maria Hospital. Lucas, Thorner, and Coblentz are the prime movers in this laudable ambition to secure a good hospital for Santa Maria.

Cottage Hospital, Santa Barbara—This hospital has now completed the installation of a modern deep therapy X-ray department. The apparatus is capable of developing 280,000 volts, of which 200,000 volts are available.

YOLO COUNTY

Yolo County Medical Society (reported by Lela J. Beebe, secretary)—This report covers the meettings and activities of the society for March, April and May.

The society met on March 14 at the County Court House, Woodland. Those present were Bates, Beebe, F. R. Fairchild, Lawhead, Lawson, Goffin and Newton. Absent: Bransford, Craig, Desrosier, C. H. Fairchild, King, McManus, Parsons, Poage, Pulsifer and Ward.

Crawford of Sacramento read a paper on "Some Orthopedic Defects of Common Occurrence."

J. D. Lawson of Woodland and Keith of Williams were elected to membership.

Goffin, Blevins and Lawhead were elected to the Board of Censors.

Lawhead was appointed delegate to the State meeting in May.

W. E. Bates and H. D. Lawhead presented reports of their observations while attending the recent Medical Clinics at Rochester, Minn.

The Woodland Sanitarium has now available 65 mg. radium, which will be put to use at once.

The Woodland Sanitarium reports that, since its weekly Health Conferences for children were opened in February, 1921, 342 children under six and 92 children of school age have been given a physical examination here with recommendations regarding hygiene and correction of defects. Frequent return of these children for observation have brought the total of visits during this time up to 1100.

SONOMA COUNTY

Sonoma County Medical Society (reported by N. Juell, Secretary)—The monthly meeting of the Sonoma County Medical Society was held on April 22 with nine members and two visitors present and twenty-nine members absent.

A number of interesting case reports were discussed at the meeting.

TULARE COUNTY

Tulare County Medical Society (reported by Elmo R. Zumwalt, secretary)—Tulare County Medical Society met on Sunday, April 23, 1922, at Hotel Johnson, Visalia. Following dinner the meeting was called to order by President A. W. Preston. There were twenty-two members present.

Following a few business items the speaker of the evening Miley Wesson of San Francisco gave a most interesting talk on the embryology of the bladder in its relation to present day diseases with especial reference to prostatic hypertrophy. The talk was enhanced by a series of excellent lantern slides.

C. A. Tillotson, M. D., of Dinuba, announced his candidacy at the coming primaries as a candidate for the State Assembly. Dr. Tillotson is a man who will fill such a position most capably and should receive the hearty support of the whole district.

Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

Quinidin in Heart Disease—Quinidin has suddenly leaped into prominence because of its striking effects in certain forms of cardiac irregularity. To see a heart that has been constantly irregular for one or two years because of a fibrillating auricle lose its lawless and rapid beat within a few hours under the influence of this drug and resume normal rhythm and rate and maintain these for months, must attract the attention of all. The conclusions of the few clinicians who have thus far reported their investigations are in remarkable agreement as to the fact that in about half of the cases of auricular fibrillation, Quinidin is capable of restoring to the sino-auricular node the control of the heart so that, for a time at least, the working of the heart is normal. However, while those who report on the effects of Quinidin are fascinated by the possibilities of the application of this drug in medicine, they are wisely conservative in their statements and frankly admit that much is yet to be learned concerning its proper use. It is to be hoped that the few favorable reports will not lead to the indiscriminate use of the drug in every type of irregular and rapid type of heart (Journal A. M. A., December 3, 1921, page 1822).

Delano's Rheumatic Conqueror has had quite a vogue in some parts of the country and has even been prescribed by physicians. Analysis shows that it consists of starch, talc, chalk and a little quinine.

Butyn is a new local anesthetic which may, if its claims are verified, advantageously take the place of cocain in many eye cases. It is a chemical individual, and not a secret preparation, but has not yet been accepted by the Council simply because that body thinks the clinical work is not yet sufficient to justify its acceptance. It seems worthy of clinical trial, which alone will tell the tale, and may easily be obtained by any physician who cares to try it.

Intravenous Specialties—There sprung up all over the country a number of concerns making specialties and standard preparations for hypodermatic and intravenous use. Some of these concerns are undoubtedly honest and are getting out good preparations. Some are honest and competent and others are simply exploiting the medical profession and the public. Physicians should be particularly careful about using these preparations and should see that the manufacturer is thoroughly reputable and not simply a "fly-by-night" with a sleek detail man. There is always a certain amount of danger in giving even the best of any of these preparations, and patients who suffer an abscess occasionally threaten the physician with a malpractice suit. The best defense in such a case would be the reputation of the house making the ampoule.

Cod Liver Oil seems to be coming into its own again. This old household remedy was for a while discredited by most physicians who believed its sole value that of a food and therefore that it could be replaced by more palatable oils. The recent work on vitamines and the discovery that Cod Liver Oil is particularly rich in at least one of them has placed it back in favor. Its value in rickets has now been definitely proved by Park and Howland who took roentgenograms which show definitely that it will cure ricketts if the diet is not otherwise too faulty. In this connection it may be stated that some other experiments seem to indicate that ricketts can be cured by plenty of sunlight. Perhaps we have the mysterious vitamines acting in the one and the electron in the other.

Esters of the fatty acid of **chaulmoogra oil** are now marketed under the name of Chaulmestrol. This is a distinct advantage because the physician who has not a chemical laboratory at his disposal can now try this remedy.

Nuforal is a name of another alleged tuberculosis remedy now on the market for revenue only,

Sodium sulphate is one of the best antidotes for **phenol poisoning.** Alcohol, which has been largely accepted as an antidote, does more harm than good when taken into the stomach.

In many parts of the country the law requires the addition of alcohol to the solution of phenol before it can be sold indiscriminately. This seems a mistake as the alcohol probably makes it more easily miscible with the contents of the stomach and, therefore, more easily absorbed. Washing with alcohol does undoubtedly prevent the local escharotic action of phenol and if applied immediately prevents carbolic acid burns. Its action is probably that of a solvent and other solvents may do as well though there seems to be no experimental work on this subject.

Another wide-spread fallacy is the belief that no water must be applied to a **sulphuric acid burn** as the water will simply cause the evolution of heat and, therefore, intensify the burn. This may be so if only a small quantity of water is used but if a large quantity be used the sulphuric acid is diluted and washed away and the heat involved is negligible as compared with the cooling effect of the water.

The writer knows of at least one instance where a trifling sulphuric acid burn became rather serious because nothing at all was done for ten or fifteen minutes while waiting for bicarbonate of soda and oil. The addition of bicarbonate of soda evolves more heat than does the addition of water. Another fact not generally known is that low-boiling gasoline acts on bromine just as alcohol does on carbolic acid, so that if bromine be spilled on the skin no bad results will be noticed if the place be immediately thoroughly washed with gasoline.

Another Step Toward Free Medical Care for Everybody—According to the New York Post of March 29, the United States Government is conducting a public service clinic at 67 Hudson street, New York. This clinic is not only open to all Federal employes, but is also open to all civil service employes of the city of New York.

In spite of the fact that this clinic is expensively equipped and expensively maintained, it has been found necessary to secure newspaper publicity in order to get patients.

Clinics of this character cause further confusion in the minds of the public as to what is worth while in medicine.

New Director for State Department of Institutions—Mr. Ralph Fisher has resigned from this position and John A. Reily, M. D., formerly medical superintendent of the Southern California State Hospital, has been appointed to fill this important medical position.

EXTENSION WORK

The following additions have been made to the Extension Lecture courses offered by members of the State Society to local societies: (See November, February and March Journals for other lectures.)

MAX ROTHSCHILD,
350 Post Street, San Francisco.

1. The early diagnosis of lung diseases.
   With especial reference to X-ray and fluroscopic examinations, and to immune-biological tests.
2. The diagnosis and treatment of tuberculosis of bronchial glands in children.
   Demonstration of X-rays showing normal and pathological conditions in children. Discussion of specific and non-specific as well as symptomatic treatment.
3. The problem of immunity in tuberculosis.
   Discussion of different theories regarding this problem, with especial reference to the laws of immunity which have been established and generally accepted.
4. The treatment of tuberculosis with specific remedies.
   Description of the vaccines and sera usually administered. A modern classification of pathological conditions which forms the basis of determination for treatment. Demonstration of X-ray plates of cases treated.
5. The treatment of tuberculosis with non-specific remedies, with especial reference to preumothorax treatment.
   Discussion of dietetic and hygienic and general treatment, heliotherapy, artificial light, X-ray treatment, pneumothorax and thoracoplasty. Demonstration of X-ray plates of cases treated.

WM. C. VOORSANGER,
177 Post Street, San Francisco.

1. Pulmonary conditions wrongly diagnosed as Tuberculosis.
2. Tuberculous Laryngitis—Is It Curable? Heliotherapy as a remedy.
3. Gastro-Intestinal Complications in Pulmonary Tuberculosis.
   1. Functional.
   2. Organic.
   3. The use of Calcium Chloride intrevenously to allay abdominal pain and inhibit peristalsis.
4. Artificial Pneumo-thorax in the treatment of Pulmonary Tuberculosis.
5. What do tuberculin and vaccines really accomplish in the treatment of pulmonary tuberculosis?
6. Advances in the diagnosis of pulmonary tuberculosis.

EDWIN I. BARTLETT, M. D.,
291 Geary Street, San Francisco.

1. Diagnosis of malignant condition by means of the exploratory incision.
   This is a lantern slide lecture dealing with the scope of the exploratory with special application to breast conditions.
   There is a discussion of when to explore, how to explore, how to interpret the findings and how to handle the case after the diagnosis is made.
2. Tumors of the mouth and jaw.
   This is an illustrated lecture dealing with differential diagnosis—treatment and prognosis.
3. Bone tumors.
   A discussion of clinical and X-ray pictures, with special reference to differential diagnosis and treatment.

Diet for Bald-heads—Now comes a New Jersey doctor with a diet for bald-headed men. He tells them that criniculture is a matter of eating some things and refraining from eating others, and that a man can have as much thatch as he wishes if he is prepared to go on a diet. It is much like telling little boys and girls that they can have curly hair if they will eat their crusts.

But there is a serious and California side to the New Jersey doctor's bill of fare for the bald. In his list of seven aids to decorating the human dome with abundant foliage he includes prunes, raisins and oranges—all fruits for which California is famous. If his advice is taken then every day will be a raisin day and a prune day and day of the sun-kissed orange, and California's industries will boom as never before. The people of the prune and raisin belts should award the New Jersey doctor a gold medal (American Registered Pharmacist's Journal, February, 1922).

BOOKS RECEIVED

Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for review in the interests of our readers and as space permits.

Diseases of the Skin and the Eruptive Fevers. By Jay Frank Schamberg, M. D., Professor of Dermatology and Syphilis. Graduate School of Medicine, University of Pennsylvania. Fourth edition thoroughly revised. Octavo of 626 pages, 265 illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, $5 net.

The Medical Interpreter. A digest in four numbers. The interpretation and translation of the world's practical medicine and surgery. Illustrated. Domestic and foreign. By Albert Alleman, A. B., M. D.

The Submucous Resection of the Nasal Septum. By W. Meddaugh Dunning, Consulting Otologist, Fordham Hospital, New York City. New York Surgery Publishing Company. 1921.

Ephraim McDowell. "Father of Ovariotomy" and founder of abdominal surgery. With an appendix on Jane Todd Crawford. By August Schachner, M. D., F. A. C. S. Philadelphia and London: J. B. Lippincott Company.

Abdominal Pain. By Prof. Dr. Norbert Ortner, Chief of the Second Medical Clinic at the University of Vienna. Authorized translation by William A. Brams, M. D., formerly Lieutenant Commander Medical Corps, U. S. N., and Dr. Alfred P. Luger, First Assistant, Second Medical Clinic, University of Vienna. New York: Rebman Company. 1922.

Epidemiology and Public Health. A text and reference book for physicians, medical students and health workers. In three volumes. By Victor C. Vaughan, M. D., LL. D., Assisted by Henry F. Vaughan, M. S., Ph. D., and George T. Palmer, M. S., Ph. D. Vol. 1, Respiratory Infections. St. Louis: C. V. Mosby Company. 1922.

Papers from the Mayo Foundation for Medical Education and Research and the Graduate School of Medicine of the University of Minnesota, covering the period of 1915-1920. Octavo volume of 695 pages with 203 illustrations. Philadelphia and London: W. B. Saunders Company, 1921. Cloth, $10 net.

Nutrition and Growth in Children, by William R. P. Emerson, A. B., M. D. 340 pages. Illustrated. New York and London: D. Appleton & Company, 1922.

The Vitamins, by H. C. Sherman, Professor of Food Chemistry, Columbia Unversity, and S. L. Smith, Specialist in Biological and Food Chemistry, United States Department of Agriculture. American Chemical Society Monograph Series. New York: The Chemical Catalog Company. 1922.

Basal Metabolism: Its Determination and Application. Frank B. Sanborn, M. S., Editor. Boston: Sanborn Company. 1922.

Pathogenic Micro-organisms—A practical manual for students, physicians, and health officers. By William Hallock Park, M. D., and Anna Wessels William, M. D., assisted by Charles Krumwiede, Jr., M. D. Seventh edition, enlarged and thoroughly revised. With 214 engravings and nine full-page plates. 786 pages. Philadelphia and New York: Lee & Febiger. 1920.

Practical Treatise on Diseases of the Skin—For the use of students and practitioners. By Oliver S. Ormsby, M. D. Second edition, thoroughly revised. Illustrated with 445 engravings and four plates in colors and monochrome. 1166 pages. Philadelphia and New York: Lea and Febiger. 1921.

Experimental Pharmacology—By Hugh McGuigan, Ph. D., M. D. Illustrated with 56 engravings and seven colored plates. Philadelphia and New York: Lea & Febiger. 1919.

Symptoms in the Diagnosis of Disease—By Hobart Amory Hare, M. D., B. Sc. Eighth edition, thoroughtly revised. Illustrated with 195 engravings and nine plates. Philadelphia and New York: Lea & Febiger. 1920.

Pitfalls—By A. J. Caffrey, M. D., instructor in physiology at Milwaukee Medical College from 1901 to 1910. Assistant Professor of Medicine at Marquette University School of Medicine from 1913 to 1920. Boston: Richard G. Badger, the Gorham Press. 1921.

Surgical Treatment of Non-Malignant Affections of the Stomach—By Charles Greene Cumston, M. D., and George Patry, M. D. Lecturers at at the University of Geneva and members of the Surgical Society of Switzerland. With an introduction by Sir Berkeley G. A. Moynihan, K. C. M. G., C. B., M. S., Professor of Clinical Surgery, University of Leeds. Philadelphia: J. B. Lippincott Company. Price, $5.

Tuberculosis in Infancy and Childhood—By J. Claxton Gittings, M. D., and Frank Crozer Knowles, M. D., and Astley P. C. Ashhurst, M. D. Illustrated. 273 pages. Philadelphia and London: J. B. Lippincott Company. 1922. Price, $5.

Skin and Venereal Diseases (Practical Medicine Series)—Edited by Oliver S. Ormsby, M. D., and James Herbert Mitchell, M. D. Vol. 7, Series 1921. 243 pages. Chicago: The Year Book Publishers. Price, $1.75.

Nervous and Mental Diseases (Practical Medicine Series)—Edited by Peter Bassoe, M. D. Vol. 8, Series 1921. 249 pages. Chicago: The Year Book Publishers. Price, $1.75.

An Essay on the Physiology of Mind, by Francis X. Dercum, M. D., Ph. D., Professor of Nervous and Mental Diseases in the Jefferson Medical College, Philadelhpia. 12mo of 150 pages. Philadelphia and London: W. B. Saunders Company. 1922. Cloth, $1.75 net.

New Medical Superintendent for Southern California State Hospital—Edwin Wayte, M. D., has been appointed medical superintendent of the Southern California State Hospital, to fill the vacancy caused by the promotion of John A. Reily, the former superintendent, to the position of director of the Department of Institutions of the State of California.

BOOK REVIEWS

Mechanics of the Digestive Tract—By Walter C. Alvarez. New York: Paul B. Hoeber. 1922.

An admirable book. Altogether admirable if in reading the chapters in which the author draws clinical conclusions from his laboratory experiments one will revert to the preface "and emphasize the fact that much of what is written in Chapters IX and X is purely suggestive."

Alvarez has carried out successfully a difficult task—that of writing a record of laboratory experiments for clinicians and practitioners to read. It takes an extraordinary man to combine laboratory and practice; one at once, as Alvarez is, a scientist and a clinician. There are very few Americans who have done this, or who could do it. The English have. This kind of work seems to go with what is best in the English mind, with a mind simple, logical, comprehending and comprehensive—such as Hunter's or Mackenzie's, Horsley's and Keith's—to name but a few of the best. The American prefers, or is able to follow but one of two courses: either to immure himself with a frog and a kymograph in a laboratory or to tear about from patient to patient in a motor car. Ability to combine the two kinds of activity is given to very few.

Let us hope, Dr. Alvarez, that your book may lead others on. There are hopes in the younger generation that it may fall here and there on fruitful ground. That many of the older men may follow it, or even trouble to lay down the Saturday Evening Post in order to read it, seems pretty hopeless.

Whether one entirely agrees with the book or not, especially whether the deductive chapters have not gone too far, is another question. We should like to see uremic hiccups and the sudden violent ileus following kidney operations explained in this chapter.

The make-up of the book evidences the author's care and good taste. The typography is excellent. The bibliography is a model. The references are culled from the diversest sources, chemical, botanical, and zoological; old and new; yet they are not diffuse but bear exactly on the end Alvarez has in view.

The book is worth reading and studying. L. E.

The Future Independence and Progress of American Medicine in the Age of Chemistry

Under this title is published the report of a special committee of the American Chemical Society. The volume contains much information of great value to research men in all phases of human progress. Thoughtful students of medicine and pathology will derive a great deal of value from a careful perusal of the report.

It is true that these same students will wonder why the report complains that "the direction of research is still essentially in the hands of medical men"; why the book is written in popular propaganda style; why efforts are being made to distribute one million copies of it and other whys.

The program of medical progress as outlined in the book seems to include "experts" and "specialists" in about every important science except clinical medicine. They do recognize a place for the experimental pathologist in the galaxy of scientific stars that is going to do so much but the physician apparently is an unnecessary element except as an agent to administer the new forthcoming specifics for various diseases.

We are treated to the conclusion that "each human body is now recognized to be a chemical

factory," thus forgetting what others have ignored that there is a mind and a soul that are not accounted for in their formulas and predictions.

It is a pity that such a fine collection of facts in such a worthy cause should be put forth in publicity by a million copies in an attempt to influence an audience of millions of readers most of whom are, of course, unable to understand or appreciate what it is all about. It is also a pity both from the standpoint of science and the good of all that the report increases the lack of confidence in physicians, which seems to be a fashionable custom of so many recent "scientific" reports.

The report is being distributed by "The Chemical Foundation," 81 Fulton Street, New York.

Essays on Surgical Subjects. By Sir Berkeley Moynihan, K. C. M. G., C. B., Leeds, England. Octavo of 253 pages, illustrated. Philadelhpia and London: W. B. Saunders Company, 1921. Cloth, $5 net.

A series of essays reprinted from various journals and collected in one volume. They are, as a whole, not equal to what we have come to expect from Moynihan's brilliant pen. A memorial essay on J. B. Murphy begins with a fine appreciation but soon digresses into an epitome of the whole history of medicine. A series of papers on peptic ulcer express Moynihan's views on treatment. He may, perhaps, have had occasion to change them a little in the three years since he wrote them. The pipings of a rising chorus of discontent with the operation of gastro-enterostomy are making themselves heard—most of them coming, it is true, from the internist's camp—but some of them, too, from the surgeon's. It will be interesting to hear Moynihan express his views ten years from now.

The best paper in the book, "The Ritual of a Surgical Operation," gives an insight into the reasons for his success as a surgeon. It is delightful to find so logical and thoughtful a development of pre-operative technique—a thing which to so many surgeons is a matter of indifferent and slipshod misarrangement. L. E.

New and Decadent Literature—"Why is it necessary to write about the indecencies of life when it is known that the young people of the present day will be the cnrious readers? The time will come, of course, after a surfeiting of this stuff, when it will cause a moral nausea, and the better class of literature will come again into its own."—The Journal-Lancet, March 1, 1922.

What Next?—"And the same necessity which compelled Jesus to accept His apostles from the ignorant fishermen of Galilee, rather than from among the scribes, pharisees and publicans of His day, now compels the Chiropractic schools to accept those who present themselves for students, and with this material as the warp and woof to weave the fabric of the Chiropractic profession."—(Quoted from a half-page advertisement in the Metropolitan Magazine).

Gas and Oxygen—The consumption of gas and oxygen for purposes of anesthesia is rapidly increasing throughout the country and particularly in the hospitals of California. This increased demand for these very useful but dangerous substances is liable to become an attractive field for ultra commercialists who are more desirous of making money than of producing a thoroughly reliable drug. Once more we wish to caution our members, and hospitals in particular, to be careful as to what and how and at what price they buy their gas and oxygen, and to be particularly careful about unusually attractive commercial propositions in this field.

POTASH AND PERLMUTTER ON "NEW DOCTORS"

(By Montague Glass in the San Francisco Chronicle of Sunday, April 2, 1922)

"Yes, Maruss," Abe Potash said, as he read in the paper of the latest attempt to license massage operators as doctors, "nowadays a lot of fellers expect you to call them doctor when you talk to them, which only a few years ago would have been glad if anyone called them mister even. In fact, Hey, you! Say! or even Psst! was the most respect they ever got from anybody, and today they are doctors yet! An idea!" Potash and Perlmutter say many other interesting and amusing things in the article referred to.

Kind-to-Animals Week—In the kindness-to-animals week let us extol the blessings of vivi-section to animals. By sacrificing a few hogs to a more comfortable death than cholera the whole porcine kind can be free of the agonies of hog cholera. A needle prick and a slight fever in a few cattle saves millions of cattle from anthrax.

Even the moral example, the avoidance of inflicting pain, the true sense of animal values of the vivisectors, has spread their lesson of kindness to animals.

When you send your precious pet to the dog hospital the skilled treatment it gets there is the product of vivisection. So let us make every humane society a center of vivisection propaganda and devote the kindness-to-animals week to inculcating kindness, the humanity, the merciful pain-saving of vivisection.—(Chester Rowell, in San Francisco Bulletin.)

Agitation for Free Choice of Physician in New York and What It Leads To (by Oliver G. Browne, published by The Self-Insurers' Association)—Physicians who are interested in industrial medicine or in the problem of the socialization of medicine or paternalistic government in general will find some most interesting reading in this little pamphlet of three pages. It shows what some laymen think of the medical profession.

The Physician As An Instructor in Health—"Only by utilizing the general practitioner as a health agent can the public receive the health information it needs and desires. When it is realized that disease in its preventive stages rarely comes to the notice of health officers, the role of the doctor assumes great importance. In order to further preventive medicine in Great Britain, the author urges that medical students become instructors in health as well as physicians in disease, that the Council of the British Medical Association inaugurate a constructive disease prevention policy, and that the medical profession assume the responsibility of maintaining the nation's health, not leaving it entirely in the hands of voluntary agencies and public health officials."—Sir Napier Burnett in Nation's Health.

An Unusual and Efficient Method of Furnishing Medical Care to Poor People—The city of Redlands, San Bernardino County, allows its poor people to have the services of any physician in the city whom they choose to call. All the physician has to do about his fee is to make out his bill in accordance with the fee schedule of the State Industrial Accident Commission and the bill is paid by the city treasurer. So far as the information is available this system has worked to the entire satisfaction of the physicians, is extremely satisfactory to poor people, and the cost to the city treasury has not proved to be large. This method might with advantage to all people be copied by other cities.

Obituary

E. M. Fly, M. D., National City, California.

This month we are called upon to chronicle the death of Dr. Edward Monroe Fly for the past twenty-four years one of the most prominent physicians and surgeons of San Diego County. He died after a short illness following an attack of influenza.

Dr. Fly was one of the men who will be missed most by those who knew him best, as his many acts of charity and kindness to his patients were only known to himself and those who were most intimately acquainted with him.

Dr. Fly was born in Easton, Pa., October 13, 1866. Received his early education at Trachs Academy at Easton, Pa., and later graduated from Lafayette College, receiving the degree of A. B. in 1888 and A. M. in 1891. Following this he taught school for several years, then was assistant superintendent of Holmes Sanitarium at Hudson, Wisconsin. Later he studied medicine at the University of Minnesota and Jefferson Medical College, graduating from the latter in June, 1894. He practiced medicine in Plumsteadville, Pa., for three years, when his ambition for a larger field caused him to give up his Plumsteadville practice and seek a new field in the southwest. Arriving in San Diego he decided on National City as being a good opening for his future activities, where he started in with his usual vim and energy, establishing for himself a reputation second to none.

He was prominent in all medical and social activities of the local medical societies, member of the A. M. A., State Medical Society of California, San Diego County Medical Society, American College of Surgeons and the Academy of Medicine. He was an ex-president of his county society and had frequently represented it in the councils of the state organization. He was also a member of the Shriners, Scottish Rite, Knights of Pythias, Odd Fellows, Elks, Woodmen of the World, the University Club of San Diego, and the San Diego Country Club.

Dr. Fly's ability, generosity, integrity, and courtesy were by-words of his many friends. His ability to work and get at the bottom of conditions that baffled others was his delight. Always firm in his beliefs and opinions until they were proven wrong. He was endowed with physical power for an unlimited amount of work, working with his patients all day and studying until the small hours of the morning was his custom. This fact was probably a factor in his early and untimely death.

He will be greatly missed in the community as a citizen, in the medical profession as a leader, and a man that any community could ill afford to lose. E. S. C.

H. BURT ELLIS, M. D.

(Born May 17, 1863. Died April 15, 1922.)

Dr. Ellis was one of the most prominent physicians in California. He located in Los Angeles in 1884. He had served as president of the Southern California Medical Association, the Los Angeles County Medical Association, the California State Medical Society, and was a Fellow of the A. M. A.

DEATHS

Adams, James T. Died in Berkeley, Calif., April 27, 1922. Was a graduate of University of Vermont, 1896. Licensed in California, 1920.

Briggs, A. E. Died April 10, 1922, in Sacramento. Was a graduate of Medical Department, University of Illinois, 1896. Licensed in California, 1898.

Ellis, H. Bert. Died in Los Angeles, April 15, 1922. A past president of the Medical Society of the State of California. Was a graduate of the College of Medicine, University of Southern California, 1888. Licensed here, 1889.

Fiske, Harold A. Died in Los Angeles, April 18, 1922. Was a graduate of the Medical Department, University of Vermont, 1895. Licensed in California, 1901. Was a member of the Medical Society of the State of California.

Mansfield, I. L. R. Died in Oroville, Calif, April 28, 1922. Was a graduate of Philadelphia University of Medicine and Surgery, Pa., 1869. Licensed in California, 1878.

Medros, J. J. Died in Oakland, April 8, 1922. Was a graduate of Cooper Medical College, California, 1894. Licensed in California, 1895. Was a member of the Medical Society of the State of California.

Weeks, Robert Eaton. Died in Los Angeles, April 8, 1922. Was a graduate of Detroit College of Medicine, Michigan, 1904. Licensed in California, 1920. Was a member of the Medical Society of the State of California.

White, Harry O. Died in San Francisco, April 23, 1922. Was a graduate of Harvey Medical College, Chicago, Ill., 1896, and University of Illinois Medical College, 1904. Licensed in California, 1915.

Wilder, C. H. Died in Oakland, Calif., April 9, 1922. Was a graduate of College of Physicians and Surgeons, Illinois, 1895. Licensed in California, 1904.